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# DOMINION MEDICAL MONTHLY

AND ONTARIO MEDICAL JOURNAL

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# Dominion Medical Monthly

And Ontario Medical Journal

VOL. XXXIV.

TORONTO, JANUARY, 1910.

No. 1.

## Original Articles

### WHAT IS CERTIFIED MILK? HOW IT MAY BE OBTAINED FOR OUR PATIENTS.\*

BY HENRY T. MACIELL, M.D.,

Chairman of the Milk Commission of the Academy of Medicine, Toronto.

The term "Certified," as applied to milk, is a word coined by Dr. Henry L. Coit, of Newark, N.J., sixteen years ago. Milk conditions were bad in Newark and its outskirts at the time, and he conceived and carried out, with the assistance of his fellow-practitioners of the Essex County Medical Society, a plan of producing good fresh clean milk—milk good enough and safe enough to feed to infants, invalids and patients generally. Such a milk Dr. Coit needed very badly on which to feed his own sick baby, and such a milk it was impossible to obtain at that time.

After a number of meetings, that Medical Society appointed a commission to look into the milk question, which, after much time and thought, reported in part as follows: The objects of the Commission are: To establish correct clinical standards of purity for cow's milk; (a) to become responsible for periodical inspection of the dairy under its patronage; (b) to provide chemical and biological examinations of the milk; and (c) the frequent scrutiny of the stock by competent veterinarians.

Three general requirements or standards of *quality* for the milk were formulated: 1st, an absence of large numbers of micro-organisms and the entire freedom of the milk from pathogenic varieties; 2nd, unvarying resistance to early fermentative change in the milk, so that it may be kept under ordinary conditions without extraordinary care; 3rd, having a constant nutritive value of

\*Read at Canadian Medical Association, Winnipeg, August, 1909.

known chemical composition and a uniform relation between the percentages of the fats, carbo-hydrate and proteids, *Archives of Pediatrics*, November, 1907.

It sought to accomplish these results through a Medical Milk Commission "who shall supervise and direct the methods employed by dairymen."

Only one milkman was found who would undertake to deliver milk up to the requirements of this commission, and a strict legal contract was made with him containing some 68 clauses. He has continued since that time to produce a satisfactory quality of milk.

Stripped of its legal phraseology, the main features of this agreement are: That, in consideration of the promised endorsement of the Commission, the dairyman will collect and handle the product of his dairy in conformity with the code drawn up by the Commission; that he will pay for chemical, bacteriological, and veterinary examinations by persons chosen by the Commission; that he shall meet all necessary expenditure for printing, etc. Other parts of the agreement relate to the location of the lands, the buildings, the water supply, the surroundings, the housing and care, the feeding, the collecting and handling, the preparation for shipment, the transportation and delivery, etc. Failure to comply with any or all requirements, the Commission reserves the right to withdraw from contract, and publish the fact in such manner as is deemed best. The dairyman shall be at liberty to cancel the agreement by giving two months' notice in writing.

This agreement to produce "Certified milk" has been in existence and the plan has been in active operation for sixteen years.

It was organized by the profession to promote only professional and public interests.

The members of the Commission disclaimed any pecuniary interest in the sale of the product, and assumed no obligations except the enforcement of the contract and the publication *among physicians* of the findings of their experts."

By the action of the Medical Milk Commission of Essex County the term was copyrighted by the dairyman who undertook to produce "Certified milk," the object being to protect the term from being degraded by dairymen not in contract with a Medical Milk Commission. It was distinctly understood, however, that the term should be allowed without question when employed by a Medical Milk Commission organized to influence dairy work for clinical purposes. "Certified milk" then, in the strict sense of the term, is milk produced under legal contract or simply under an agreement between a Medical Milk Commission and a dairy, and which con-



forms to the requirements. It may be said further, that milk entitled to be certified is clean and wholesome, and is obtained from healthy cows which are kept in sanitary quarters, fed good food, and given pure water. It is drawn from clean cows by clean, healthy attendants, into clean receptacles, and in a clean atmosphere. It is handled in a clean manner, cooled quickly, put into sterile vessels, placed in cold storage, and iced in transportation when necessary."

I have given these details of the Medical Milk Commission of Essex County at considerable length, because it has been the basis on which nearly all the Milk Commissions in the U. S. have been established.

Up to February, 1906, that is thirteen years from the organization of the first Commission, only 14 such Commissions had been organized.

In the year 1907 six more were put in active operation, and in 1908, twelve. In the first five months of this year 14 more were added to the number, making in all 56 up to June 7th, when the meeting of the American Association of Medical Milk Commissions took place at Atlantic City. They extend from Boston in the East to Santa Barbara in the West, and from Colorado Springs in the North to Jacksonville in the South.

In New York State the term "Certified Milk has become legalized, and a penalty is imposed for the sale of certified milk which does not conform to the regulations prescribed for and bear the certification of a Medical Milk Commission. All milk sold as certified shall be conspicuously marked with the name of the Commission certifying it." Kentucky also has passed a law regarding certified milk. In April last New Jersey passed "an act providing for the incorporation of Medical Milk Commissions and the certification of milk produced under their supervision."

The *expenses* of the Commissions are met in several ways, one of the most common being the sale of caps at from \$4 to \$5 per M.; one Commission charges \$6 per month; one charges \$5 for each chemical and bacteriological examination, and \$10 for each veterinary inspection. One simply sends all bills to the dairyman, and one charges a tax of one-half cent per quart for certification. In Toronto each dairy buys its own pulp caps and parchment covers, has them printed and sterilizes them at its own plant.

The additional cost to the consumer in the U. S. has varied from 3 to 8 cents per quart. The average additional advance has been about 5 cents per quart above the cost of ordinary market milk. It is put up in quarts and pints. The Gooderham dairy,

however, has made a new departure and now puts up half-pints; of these the King Edward Hotel alone takes 100 per day.

The supply exceeds the demand. At present the citizens of Toronto call for only 1,107 quarts and 417 pints per week. In addition to the above, Price & Sons send it to the summer cottages on Lake Simcoe, forty miles from Toronto, and to the Royal Muskoka Hotel, 100 miles. While this amount seems a trifle distributed over a city of a third of a million people, it must not be forgotten that we have only been certifying to the milk of the first dairy since February last, and to the second since the 20th of May.

How may it be obtained? I do not know that I can answer this question better than by giving a short history of the method followed by the "Milk Commission of the Academy of Medicine, Toronto." This Commission was appointed by the Academy in October last. After organizing we adopted the following requirements: The herd is to be tuberculin tested on admission, and twice yearly afterwards by a veterinary surgeon appointed by the Commission; he is also to make a monthly inspection of the herd as to illness, such as mastitis, etc. The bacteriological count is to be less than 5,000 per cubic centimeter from October to May and less than 10,000 during the hot months, June, July, August and September. The chemical examination is to show that the fats and proteids average 4%, but a variation of  $\frac{1}{2}\%$  of 1% above or below that point is allowed. The total solids are not to fall short of 12 to 13%. The milk is to be cooled to 45° F. within half an hour after milking and kept at that temperature till delivered to the customer, which must be within 24 hours. It is neither to be heated nor frozen, nor is any preservative to be added. The dairy is to be visited each month by "the physician for the month," who reports as to indisposition or illness among employees; the driver is to hand out of his delivery wagon a bottle for examination whenever asked for by the Secretary of the Commission.

After deciding among ourselves what our requirements should be to safeguard the milk, and therefore our patients, we sent out a circular letter to about 200 dairymen who have to do with Toronto's milk supply. As a result of our circular we were consulted by a number of them, who thought they would like to produce certified milk. Some thought we were too particular, some that it was too much trouble, and others that there was not enough money in it for the extra trouble, etc. Finally three firms seemed much in earnest and decided they would put their plants in shape and make the attempt to meet our requirements.

One large item of expense—the monthly cost of a bacteriological and chemical examination of the milk—we have been able to save

to our dairies through the kindness of the Hon. Mr. Hanna, the Provincial Secretary, who has allowed our Commission to make use of the laboratories of the Provincial Board of Health of Ontario for such examinations free of charge. Instead of paying someone to collect the monthly or bi-monthly samples from the wagons for examination, the Secretary of our Commission has volunteered to do this, and thus again our dairies are saved another expense.

The "physician for the month"—a member of the Commission—who goes out into the country and reports as to the health of the attendants, etc., does so without remuneration. The same may be said of the Commission as a whole. No member receives any compensation directly or indirectly for his services. In New Jersey it is a penal offence to do so, and the fine is \$100.

Our veterinary inspector charges \$10 per day for tuberculin testing the herd. On one occasion he tested 75 in one day of 24 hours—a big day's work. The tuberculin is extra and so are the broken thermometers. For his regular monthly visit the charge is the same. This is an easy day's work, but it offsets the heavy day's work. Transportation, usually by automobile, is provided by the dairy for both the physician and the veterinary.

Two large dairies are now producing certified milk well within the requirements adopted by our Commission: The first, S. Price & Sons, at Erindale Farm, about 18 miles; the second, Gordon S. Gooderham, at Manor Farm, York Mills, 6 miles from Toronto. A third dairy, the City Dairy, whose herd has been tuberculin tested, expects to qualify within a few weeks.

Since the first certificate was issued, 4th February last, the bacteriological counts are:

Erindale Farm—February, 1,900; March, 450; April, 850; May, 2,860; June, 3,100; July, 1,800. (No ice used up to the June examination.)

Manor Farm—May, 600; June, 860; July, 3,000.

These are records of which any dairy may justly feel proud.

That our certified milk in Toronto may be ranked among the best is evidenced by the fact that at the recent milk contest in charge of the Dairy Division, U. S. Department of Agriculture, Washington, D.C., held in Cincinnati in April last, and to which all known producers of certified milk were invited, Price & Sons took *third* place with 95 points out of a possible 100, and with only  $1\frac{1}{2}$  points below the dairy awarded first place, and the trophy presented by the American Association of Medical Milk Commissions.

Physicians in Toronto are now able to obtain for their patients milk of a high grade quality, and in the near future our mortality, to say nothing of our morbidity, ought to be materially lessened.

One thing, and one thing only, to my mind, which will interfere with the more general use of certified milk for infants, invalids and growing children, is the cost. Who of us here, if we had an ill baby at home, would not willingly pay the extra few cents per quart to have the food clean and fresh?

If this applies to babies during illness, it does also to those who are well, for it is one of the best means of keeping them in good health—it is preventive feeding. With infants and infant feeding, it is much easier to keep them from getting ill than to help them after their digestive tract is damaged by the average commercial city milk, which many of us know to be teeming with bacteria.

Shortly after the organization of our Commission, the following institutions sent samples of their daily milk supply to Prof. Amyot of the Laboratories of the Provincial Board of Health, Toronto, for examination: The Hospital for Sick Children, Infants' Home, Home for Incurable Children, Toronto General Hospital, Western Hospital, St. Michael's Hospital, St. John's Hospital for Women, Grace Hospital, etc. More than one bacteriological count was made for some of the institutions. Taken at random, these milks showed to the cubic centimeter (about 16 drops) 1,500,000, 1,200,000, 83,200, 4,500,000, 6,500,000, 310,000, 18,900, 200,000, 17,600, 120,000, 280,000, 90,000, 254,000,000 bacteria.

These figures show that Toronto hospitals were not getting clean milk. They show also that those in the community—the patients—who above all others need it, are not getting it. This is especially the case when we see that three of the seven institutions above-named have to do entirely with infants and children. As the Chairman of the Board of Trustees of one hospital said, "It is like feeding our children on milk sewage."

What is true of Toronto holds good, in all probability, of the majority of cities and towns in the Dominion.

The "Medical Society Milk Commission" and the "Certified Milk" plan is a means by which we physicians can secure a food which ought to be the main article of diet of our patients, particularly those under three years of age. It must be produced under the supervision of a regularly organized medical society or an academy of medicine, and be responsible solely to that Society. No legal formalities have to be gone through, and no municipalities, with the frequent vexatious delays and postponements, need be consulted. There may be merely a mutual understanding, which is all we have in Toronto, or a contract signed, sealed and delivered in proper legal phraseology, between a milk producer and a commission. The experience of the past has been that it is easier to form



a commission and decide upon a standard than to find a dairyman who will agree to live up to it.

While the Academy of Medicine, Toronto, through its Commission, was the first medical body in Canada to give its members an opportunity to obtain certified milk for their patients, I see no reason why the majority of the medical societies throughout this broad Dominion might not make it possible to have certified milk for their patients before the meeting of this Association next year.

(Samples of cards in use by the Commission were exhibited. Samples of milk produced by Erindale and Manor Farms, milked 16th August and expressed iced that day to Winnipeg, were also exhibited and found in first-class condition (23rd August)—just as good a condition as when they left Toronto, judging by sight, smell and taste.

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### A CASE OF SEVERE TETANUS, WITH RECOVERY.\*

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BY ALEXANDER BELL, M.D.,

Vice-President Sarnia Medical Library Association.

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It is a pleasure, I can assure you, to be honored by an invitation from your Secretary to report a severe case of tetanus and its recovery. Tetanus is, as you are all aware, an infectious disease, though not as common as pneumonia, measles, typhoid, la grippe, septicemia, erysipelas, etc., yet much more fatal, different reports placing the mortality at from 80 to 90 per cent. It is more of the nature of hydrophobia, and resembles strychnine poisoning somewhat, and it is almost equally fatal, unless prophylaxis is instituted before the disease has become well established and marked symptoms have developed. Although not of common occurrence, yet within the last year we have heard of several isolated cases in various parts of our province, all or nearly all of which have been reported fatal. I therefore take some pleasure in reporting this recovery.

On the evening of September 14th, I was consulted over the 'phone regarding a young lad, B. W., aged eleven years, suffering with a pain in his abdomen or "stomach," as they put it. They had given him castor oil and enemas without success, and therefore had called me up to know what to do. I said I had better

see him, and went up accordingly. It was while examining the boy that I observed that there was something much more serious the matter than a pain in his stomach and constipation. I observed that he could not open his mouth more than a quarter of an inch, and could only put out his tongue about the same distance. His temperature was 100 degrees, pulse 90 and respirations 20. I also observed that about every half minute he was having a severe clonic spasm, at which time the mouth would shut tight with a peculiar click in his throat; that peculiar look on his face called "Risus Sardonicus" was well marked, and he would call out after the spasm, "Oh! my stomach." This pain in the stomach seemed to be due to the extreme tension on the abdominal muscles, which, I observed, were continuous in a state of extreme tension or tonic spasm. On further examination I found that all the muscles of the back were extremely rigid, or, in other words, the boy's position was that of opisthotonos. It now occurred to me that I had to deal with tetanus or lockjaw. I inquired if the boy had recently received an injury, and the grandmother replied that he had fallen and cut his knee on the gravel walk on September 2, 1909, and that she had healed it with "Zambuk." So I examined the knee, to find a wound then scabbed over, but not healed. It was about half by three-quarters of an inch in size. It looked as though it had been a bruised cut such as would have been caused by a fall on a stone. I then elicited the following facts: On Saturday, September 11th, the ninth day after the injury, the boy began to complain of his jaws being stiff and sore. The grandmother thought he was taking mumps, and rubbed on some home remedy. Sunday, September 12th, he said his jaws were somewhat stiffer and that his neck began to get sore. Monday, September 13th, he complained to his father, saying: "There, father, is another thing coming to me; I bit my tongue last night." He also began to complain of pain in his stomach, and said he was very tired, and would not go out with the other children. On Tuesday, September 14th, the fourth day of the disease, the symptoms were all exaggerated, and he was as I have described him when I was called at 7.30 p.m.

I now gave him  $\frac{1}{4}$  gr. of morphia, 2 grs. of calomel and soda each, and ordered him 2 drams of Epsom salts to be taken at midnight, and scrubbed out the wound thoroughly and dressed it with balsam of Pern. At 8.30 the same evening I took Dr. McDonald up to see him, and he agreed with my diagnosis of tetanus; and I gave 1,500 units of P. D. & Co.'s antitetanic serum and 8 grs. of chloral and 10 of triple bromide, and  $\frac{1}{8}$  gr. of morphia, to be given every three hours all night.

Dr. McDonald drew my attention to an article in the *Journal of Surgery, Gynaecology and Obstetrics*, of Chicago, by Wm. Hesser, of Chicago, in which he reports fifteen cases treated by intra-spinal injection of 25 per cent. sterilized magnesium sulphate solution. The dosage of this has been arrived at experimentally as follows: Of the 25 per cent. sterile solution of magnesium sulphate 1 c.c. is injected by lumbar puncture for every 20 lbs. body weight in men. For women and children the proportion is 1 c.c. solution for every 25 lbs. of body weight. It is best with the first injection to be very cautious and ascertain the tolerance of the drug. The initial dose should be rather smaller than the proportions just given, for if too large it will result in paralysis of the heart and respiratory centres. As this case seemed a most serious one, I decided to try this injection if the symptoms were not some better in the morning.

On Wednesday, September 15th, I saw him at 8.30 a.m. He had had a very poor night; the clonic spasms were not quite so frequent, but would occur on the slightest irritation, such as noise on the street, trying to drink, or touching him in any way. So I had Dr. McDonald chloroform him while I injected 2 c.c. of the sterile 25 per cent. magnesium sulphate solution by lumbar puncture (the boy weighing 70 lbs.). I also continued giving him the chloral and bromide all day, but no morphine. At 7 p.m. he was slightly relaxed, but was still having quite severe clonic spasms, though much less frequent. There was retention of urine, and he had to be catheterized. I then gave him 1,500 units antitetanic serum and 6 c. c. of the 25 per cent. magnesium sulphate solution subcutaneously, as he was still in a severe tonic condition. Having seen another article in the July number of the *Chicago Journal of Surgery, Gynaecology and Obstetrics* by Willard H. Hutchings, M.D., of Detroit, on the use of chloretone to relax the spasms of tetanus, I decided to give one dram chloretone, dissolved in two ounces of hot sweet oil, injected into the rectum. This, however, was not retained, and at 11.45 the same evening he was very restless until the bowels were thoroughly washed out by normal saline.

Thursday, September 16th, I saw him at 9 a.m. He was very irritable and restless, though he was reported to have slept well from midnight to 6 a.m. His temperature was 97 by the axilla (all temperatures in this case were taken by axilla), pulse 90, respirations 20. His jaws, though still locked, could be opened about half an inch. The abdominal, back and neck muscles were still rigid, but not so much so as on the previous evening. He still had to be catheterized, and, under chloroform, I

again injected by lumbar puncture 3 c.c. of the magnesium sulphate solution, and removed him to Sarnia General Hospital. When put to bed here he was given continuous saline solution by the bowel by the drop method, this being given continuously during his sickness, and he would absorb from 5 to 6 pints in each twenty-four hours. At 11.30 a.m. he awoke from the chloroform, complaining of severe pain in the bowels, which was undoubtedly due to the severe spasms of the muscles. At 12 a.m. he was given 1 oz. of beef tea, which he swallowed somewhat better than he had done at any time in the two days previous. At 1 p.m. he fell asleep and slept till 6.30 p.m., being quite relaxed in all his muscles during this time. The urine was now known to be passed involuntarily and profuse, and continued so for several successive days. Also he was having from two to four involuntary stools daily from this on, produced by giving 1 oz. of castor oil or 2 drs. kasagra daily. At 7 p.m., September 16th, he had 1,500 units of serum; the muscles were still quite relaxed, but some slight spasms would be noticed if he were bothered in any way. His temperature was 97 3-5 degrees, pulse 90, respirations 18. At 9.30 p.m. he was becoming very restless, so I decided to give him 30 grs. chloretone dissolved in hot oil per rectum, which was retained, and he slept at short intervals all night, but would have some spasms when disturbed by the nurse for nourishment. He took a cup of beef tea or albumen water every three hours.

Friday, September 17th, 6 a.m., T. 97 3-5, P. 90, R. 20. At 8.30 a.m. his spasms were quite severe, and the extensor muscles were quite rigid. I gave 30 grs. chloretone dissolved in oil per rectum, but it was not retained. At 10 a.m. I gave 4 c.c. of the 25 per cent. sterile solution of magnesium solution by lumbar puncture. By 11 a.m. the patient was quite relaxed and took some ice cream. By 12 a.m., T. 100 degrees, P. 96, R. 20, and the patient was asleep. 2 p.m., patient still sleeping, grinding his teeth; neck, jaws and back muscles were quite relaxed, but the abdomen was much distended, so I gave him chloretone 1 dr., dissolved in oil per rectum, which was expelled. 6 p.m., he was resting quietly, and very drowsy and limp, and the conjunctivas were becoming injected. His temperature was 99 3-5 degrees, pulse 70 and respirations 20. He was given 1,500 units of serum. He was not swallowing sufficient nourishment, I thought, so from now on for several days he was fed every six hours with 8 oz. of milk and one whole egg beaten up together and put into the stomach by means of a catheter passed through the nose into the stomach.



Saturday, September 18th, 1.30 a.m. : Patient very restless, but sleeping; T. 100 degrees, P. 70, R. 22. 6 a.m., T. 100 4-5 degrees, P. 88, R. 24; patient in a stupor, would not swallow, conjunctivas very red. 10 a.m., gave serum 1,500 units, and 6 c.c. of the 25 per cent. magnesium sulphate solution subcutaneously, as the patient had had several slight spasms while working with him, but he was otherwise quite relaxed in all his muscles. 2 p.m., T. 102 2-5 degrees, P. 128, R. 24, the patient resting and asked for ice cream. Took 2 oz. At 4 p.m. his T. 103 degrees, P. 126, R. 32. I now ordered him digitalin, 1-100 of a grain, and adrenalin chloride 6 gtt., given hypodermically every four hours if pulse was over 110, and phenacetin grs. 4 by mouth if temperature were over 102, every four hours, together with a hot sponge bath. This was done, and at 6 p.m. his temperature was 101 2-5 degrees, pulse 110, respirations 12. The respirations were now noted to be very shallow. Patient was very restless, and kept calling out loud and seemed to be in a stupor, but his muscles remained relaxed, but he refused to swallow. 10 p.m., T. 102 2-5 degrees, P. 114 and irregular, R. 36. He was given his phenacetin and hypo. and hot sponge, but had some slight spasms while being given them. Otherwise the muscles were quite relaxed and the abdomen soft. 11 p.m., T. 100 3-5 degrees, P. 104, R. 36 and shallow.

Sunday, September 19th, 2 a.m., T. 100 1-5 degrees, P. 96, R. 36. Still in a stupor, but had several spasms while working with him, so he was given 20 grs. chloretone dissolved in half ounce of whiskey with his milk and egg into the stomach. I also now ordered him to be given  $11\frac{1}{2}$  drs. of a 1 per cent. solution of carbolic acid hypodermically every  $2\frac{1}{2}$  hours, to be given along the spinal column, which were continued from now on daily, and I also increased his serum from 1,500 units in the 24 hours to 3,000 units in the 24 hours. At 6 a.m., T. 100 4-5 degrees, P. 120, R. 36. He was given his hypo. of digitalin and adrenalin. Patient coughing, phlegm in throat. The wound, which had been dressed daily with balsam of Peru, was now completely healed. Though he was still in a stupor or sleeping, he was quite relaxed in all his muscles, but would have a spasm whenever anything were done for him, so I again gave him chloretone dissolved in whiskey, half ounce, with his milk, at 10 a.m. His temperature was now 100 degrees, pulse 116, respirations 28. By 1 p.m. his temperature was 104 degrees, pulse 138, respirations 50, which were very irregular and shallow. He was now given his hypo., and 5 grs. of phenacetin were given by mouth. It now occurred to me that chloretone was having a bad effect on the patient's

respiration, so I gave no more. 3 p.m., T. 103 1-5 degrees, P. 110, R. 38. He was given a hot pack. 6 p.m., T. 102 2-5 degrees, P. 144, R. 42. He was given his hypo., and phenacetin grs. 5, and his hot pack. 10 p.m., T. 102 4-5 degrees, P. 128, R. 42. He was again given his hot pack, and phenacetin grs. 5 and his hypo. He was showing signs of the spasms increasing, so I gave him 6 c.c.'s of the magnesium sulphate solution subcutaneously. At 11 p.m., spasms were less, he was quite relaxed and sleeping comfortably.

September 20th, 2 a.m., T. 103 1-5 degrees, P. 120, R. 48. He was given his phenacetin grs. 5, his hypo., and hot sponge bath. 3 a.m., his temperature was 101 degrees, pulse 118, respirations 40, which were very shallow. 6 a.m., T. 101 2-5 degrees, P. 130, R. 48; he was again given his hypo., but no phenacetin. 10 a.m., temperature was 103, P. 142, R. 40. He was now given phenacetin grs. 5, and his hypo. He was still sleeping, was completely relaxed, but had slight spasm when touched. 2 p.m., T. 104 degrees, P. 138, R. 42. He was given his phenacetin grs. 5 and his usual hypo. His conjunctivas were noted to be very red still. The superficial reflexes were noted to be all absent, but the pupillary reflex was present. 5 p.m., T. 105 degrees, P. 146, R. 42. He was given his phenacetin grs. 5, his hypo. and his hot sponge bath. 7 p.m., T. 103 4-5 degrees, P. 146, R. 42. 10 p.m., T. 105 degrees, P. 148, R. 54. He was given his phenacetin grs. 5 and his hypo.

September 21st, 2 a.m., T. 104 2-5 degrees, P. 124, R. 48. He was given his phenacetin grs. 5, his hot sponge bath and his hypo. 6 a.m., T. 104 4-5 degrees, P. 128, R. 48. He was given his phenacetin, his hot sponge bath and his hypo. Patient had been very restless all night, and there was observed to be frequent twitchings of his limbs. 10 a.m., T. 105 degrees, P. 144, R. 46. He was given his phenacetin his hot sponge and his hypo. 2 p.m., T. 105 2-5 degrees, P. 110, R. 46. He was again given his phenacetin grs. 5, a hot sponge and usual hypo. 5.30 p.m., T. 106 degrees, P. 148, R. 48. The respirations were very shallow, patient was very limp and relaxed. He was given a hot pack, his phenacetin grs. 5, aspirin grs. 8 by mouth in capsule, which he swallowed with difficulty. He was also given his usual hypo. At 7 p.m. his temperature had gone up to 107 degrees, so I ordered him a pint of ice-cold water as an enema, which he expelled in half an hour. At 7.30 his temperature had fallen to 104 degrees. At 8.30 temperature was 103 degrees. 10 p.m., temperature again going up and was now 105 degrees, pulse 114, respirations 48. One pint of ice water

was ordered as an enema, which was retained half hour. He was also given aspirin grs. 8, phenacetin grs. 5 by mouth, with his usual hypo. While giving these the patient had three severe spasms, otherwise was quite relaxed. 11 p.m., temperature down to 103 degrees, the abdomen was very much distended. The rectal tube was passed, and he was relieved of much flatus.

September 22nd, 2 a.m., T. 102 degrees, P. 124, R. 42. He was given phenacetin grs. 5, aspirin grs. 8 by mouth, and his usual hypo. While giving these the patient had a severe spasm, but was otherwise quite relaxed. 9 a.m., temperature still dropping, being now 102 degrees, pulse 128, respirations 36. He was again given one pint ice water enema, and phenacetin grs. 5 by mouth, and his usual hypo. The conjunctivas were still very red. Fearing some meningital complication, I aspirated by lumbar puncture half ounce of spinal fluid, which was quite clear and normal in every respect, while doing which, without an anesthetic, he had a spasm, which was only slight. It was now noted that instead of incontinence of urine he had retention. The catheter was passed, drawing off 18 oz. He had to be catheterized daily now for the next two or three days. 10.30 a.m., T. 100 degrees, P. 110, R. 30. Patient was much better, spoke to the nurse and asked for ice cream. His muscles were still quite relaxed, and he had no spasm while passing the catheter through the nose into the stomach. 2 p.m., T. 101 1-5 degrees, P. 112, R. 38. He was again given, by mouth aspirin grs. 8 and phenacetin grs. 5, and his usual hypo. 6 p.m., temperature again showed an inclination to advance, and became 103 degrees. He was given one pint of ice water by enema, which was retained half hour, and 5 grs. phenacetin by mouth. At 7 p.m. his temperature was 100 4-5 degrees, pulse 100, respirations 36. At 10 p.m. temperature had again gone up to 103 1-5 degrees, pulse 120, respirations 36. Patient was now observed to be perspiring freely for the first time, his skin at all times previous having been very dry. He was now given, by mouth, phenacetin grs. 5, aspirin grs. 8, and his usual hypo.

September 23rd, 12.30 a.m., his temperature was 103 4-5 degrees. He was given an ice-water enema, one pint of which he retained half hour. At 2 a.m. his temperature was 101 degrees, pulse 120, respirations 40. The patient had some very slight spasms while being worked with, and was coughing considerably. The lungs were examined, but were found to be quite clear, the cough coming from the throat. 3 a.m., T. 103 degrees. He was given one pint ice-water enema, which was retained only about half an hour. 4 a.m., temperature 104 degrees. He was

again given ice-water enema, and by mouth phenacetin grs. 5 and aspirin grs. 8. 6 a.m., T. 102 degrees, P. 118, R. 42. Patient was quite relaxed all night, but had three slight spasms while working with him at that time. He was given his usual hypo. 9-30 a.m., T. 101 3-5 degrees, P. 112, R. 48. Patient roused somewhat from his stupor through the night, and swallowed much better. He was still perspiring profusely. This was evidently the crisis, since the temperature from this time on kept gradually on the decline, with at no time any further increase. Also the pulse and respirations continued to improve, so that from this on he required no hypos., nor phenacetin, nor aspirin, nor temperature baths, nor enemas, but his carbolic injections were still continued, as was also his continuous saline, and we also continued to give him his milk and egg by catheter into the stomach. The serum was continued still at 3,000 units per day. 11 a.m., T. 100 1-5 degrees, P. 102, R. 34. 2 p.m., T. 100 3-5 degrees, P. 108, R. 40. 6 p.m., T. 100 2-5 degrees, P. 108, R. 40. 10 p.m., T. 100 degrees, P. 108, R. 36.

September 24th, 2 a.m., T. 99 3-5 degrees, P. 98, R. 36. 6 a.m., T. 99 4-5 degrees, P. 96, R. 30. As some spasms were still present when worked with, I gave him again 10 grs. chlorotone in half-ounce whiskey, by mouth. 6 p.m., T. 98 3-5 degrees, P. 120, R. 46. 10 p.m., T. 99 1-5 degrees, P. 118, R. 48. Gave patient 10 grs. chlorotone by mouth.

September 25th, 2 a.m., T. 99 3-5 degrees, P. 108, R. 36. 6 a.m., T. 99 4-5 degrees, P. 108, R. 38. Patient was very restless all night and had some slight spasms. 10 a.m., T. 99 3-5 degrees, P. 108, R. 40. As there were still some slight spasms, and as the chlorotone, to my mind, had shown a bad effect on pulse and respirations, I therefore gave him 6 c.c.s of the 25 per cent. sterilized magnesium sulphate solution subcutaneously at the same time as I had given him his serum. At 2 p.m. his temperature was 99 2-5 degrees, P. 114, R. 38. 6 p.m., T. 99 2-5 degrees, P. 108, R. 34. Patient resting quietly and still relaxed, no spasm noted all afternoon. 10 p.m., T. 98, P. 98, R. 30.

September 26th, 2 a.m., T. 98 degrees, P. 88, R. 36. Patient still relaxed in all his muscles and sleeping quite naturally. 6 a.m., T. 98 degrees, P. 96, R. 34. Patient had slept well all night. Swallowed without difficulty all nourishment by the mouth, so now stopped forcing his food into the stomach by catheter. Patient now asks for bed pan and urinal. 2 p.m., T. 99 3-5 degrees, P. 114, R. 38. 6 p.m., T. 99 3-5 degrees, P. 108, R. 34. 10 p.m., T. 99 degrees, P. 98, R. 30.

September 26th, 2 a.m., T. 98 degrees, P. 88, R. 36. 6 a.m.,



T. 98 degrees, P. 96, R. 34. Patient had a good night, slept all night. 10 a.m., T. 97 degrees, P. 102, R. 30. 2 p.m., T. 97 3-5 degrees, by mouth, P. 92, R. 30. 10 p.m., T. 99 3-5 degrees, P. 96, R. 36. Patient coughing considerably, had a slight spasm when given carbolic hypo. this evening.

September 27th, 2 a.m., T. 99 degrees, P. 90, R. 30. 6 a.m., T. 98 degrees, P. 88, R. 30. Patient had a very good night and no spasms. 10 a.m., T. 98 3-5 degrees, P. 84, R. 24. 2 p.m., T. 98 3-5 degrees, P. 84, R. 34. 6 p.m., T. 99 2-5 degrees, P. 108, R. 26. 10 p.m., T. 98 4-5 degrees, P. 88, R. 28.

September 28th, 6 a.m., T. 98 degrees, P. 90, R. 26. Patient had slept well all night and no spasms. The serum which had been given in 3,000 units every 24 hours for the last ten days was now discontinued, as also was the continuous saline, the carbolic hypo. being kept up every three hours in the day for the next week. He had been given in all 37,500 units of antitetanic serum.

From this on the boy made an uneventful recovery, leaving the hospital October 7th.

The treatment in this case, I am sorry to say, although successful, has been somewhat complicated. But as it was a desperate case and a human life was at stake, I did not hesitate to use the best remedies that ever had been recommended for the disease, and I would draw from their use the following conclusions:

1st. That I consider morphine, chloral and bromide almost useless to control the spasms of tetanus.

2nd. That I consider chlorotone by mouth dissolved in whiskey quite potent in relaxing the spasms, and chlorotone dissolved in hot oil and given by bowel I consider uncertain.

3rd. That I consider lumbar puncture of 25 per cent. sterilized magnesium sulphate solution given as recommended in Dr. Hessart's article in the *Journal of Surgery, Gynecology and Obstetrics* of August, 1909, as equally effective in relaxing the spasms. Also that this solution given subcutaneously is effective, but less rapid in action.

4th. That the ice cold enema was of remarkable value in the reduction of extremely high temperature.

5th. That antitetanic serum should be given in much larger doses than 1,500 units in the 24 hours to produce its best curative effect.

6th. I am at loss to know which of the two, serum or carbolic acid was the means of finally curing this severe case of tetanus.

## A NEW TREATMENT FOR ABDOMINAL SURGICAL SHOCK.

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As the problem of the cause of shock now stands, there are many contradictory theories.

It is best for me to state at the beginning of this paper that the case that I will report later, together with my investigations, have proven to my satisfaction that in surgical shock the peripheral vessels are contracted and the vessels in the splanchnic area are dilated. And the vasomotor nerve mechanism is not paralysed, but is injured sufficiently to lose its reason or function instead of acting in its long accustomed extremely intelligent and prompt manner, in distributing the right amount of blood to the right places at the right times, which is essential to life. There is not nearly enough blood in the body to fill all the blood vessels at once if they were all dilated. Goltz in his famous experiment showed that if a frog be suspended in the upright position and its heart exposed, a blow upon the abdomen has a two-fold action, (1) it stops the heart reflexly through the vagus; but after this effect has passed off (2) the heart beats again, but is empty and sends on no blood into the vessels, because the blow has caused dilation of the abdominal vessels, and all the blood becomes stored up in them, so that none reaches the heart.

Besides the chief vasomotor centres in the medulla there are subsidiary centres in the spinal cord, and Goltz<sup>2</sup> and Ewald have shown that the ganglionic chain of the sympathetic can assume the function of the vasomotor centres.

<sup>3</sup>When the centres or nervous trunks of the vasomotor nerves are irritated, the vessels contract.

<sup>4</sup>Section of the splanchnic nerves causes an immediate and sharp fall of blood pressure. The intestinal arteries, veins and portal vein are dilated and over-filled with blood. As a necessary consequence of their immense capacity the rest of the vascular system is under-filled, and the blood pressure falls accordingly. Stimulation of the peripheral end of the splanchnic nerves causes a great rise of blood pressure owing to the constriction of the vessels in the intestinal area. This shows that the vasomotor fibres in the splanchnic nerves are mainly of the constrictor type,

also that the splanchnic area serves to a great extent as a regulator of blood pressure.

<sup>5</sup>Mall has shown that the splanchnic nerves contain vaso-constrictor fibres for the portal vein, and Ludwig and Lauder Brunton have shown that the liver in the living is much like a sponge, i.e., can accommodate much blood.

<sup>6</sup>Almost all the cells of the solar plexus are included in the course of the fibres of the splanchnic nerves (Landois). Elevation of temperature, also fever causes irritation of the splanchnic nerves. (Landois).

One of the principal functions of the vasomotor nerve mechanism is the proper distributing of the blood in order to preserve the normal temperature of the body. Eighty per cent. of the heat expenditure of the body is through the skin. So when for any reason more than the normal heat or temperature occurs in the body it is a function of the vasomotor nerve mechanism to at once correct it, but it does not always do it. The elevation of temperature causes irritation of the splanchnic nerves, sympathetic ganglia and vasomotor centres so that orders are usually sent at once to correct the situation; the heart beats faster and peripheral vessels dilate; thus more blood is gotten to the surface to radiate and evaporate heat.

This treatment which I advocate is especially suitable for shock during the few hours or days following an abdominal operation, when the patient is not under an anesthetic, although it is probably beneficial when the patient is anesthetized, but not to so great a degree. It is as follows:

Take out two skin sutures as near the umbilicus as the wound will permit, then pry apart the continuous sutures in the fascia and peritoneum. You can now see if hemorrhage is present. This procedure is not difficult nor very painful because when patients are in shock they are more or less insensible to the causes of ordinary pain. See that a nurse has ready very hot and cold normal salt solution, reservoir with four feet of rubber tubing, together with a glass tube or cannula six to eight inches long. Both rubber and glass tubes should have a diameter of 1-3 to  $\frac{1}{2}$  inch. Have a quart of saline solution at temperature of 112 Fahr. in reservoir which should hang three feet higher than abdomen. Now have wound held open so that you can see omentum or intestines, also see that the tube and the cannula are now full of the hot solution, then insert the long cannula beneath the omentum, if possible, pushing it upward so that your glass tube penetrates to the posterior peritoneum up behind the transverse mesocolon

to the neighborhood of the posterior wall of the stomach, getting as near to the solar plexus as possible. The solution still at 112 Fahr. is now allowed to run in as rapidly as it will. Probably a pint will fill the abdomen and be enough. This will take only five or six seconds. Now during the first two or three seconds of this time the patient feels little or no pain; only feels that the hot solution is permeating among the intestines; but the remaining two or three seconds is much different—the pain is very severe, for then the splanchnic nerves, the solar and hypogastric plexuses are being strongly irritated by the heat and pressure of the hot salt solution. They are well known to be very sensitive. Being that the patient is not under an anesthetic the reflexes are not depressed by it. Now the irritation of the splanchnic nerves and sympathetic ganglia produced by the heat and pressure at once cause contraction of the intestinal arteries, veins and portal vein, and thus a marked rise in blood pressure. Really a shock is produced by the sudden pressure of this hot solution on this great and important part of the vasomotor nerve mechanism, but this shock is a sudden reversal of the phenomena of surgical shock. The radial pulse returns or its pressure is markedly increased. The glass tube is taken out quickly; a small piece of gauze laid over the wound, and a strip of adhesive plaster applied, then a tight abdominal binder to sustain the pressure. If this treatment should not succeed, I strongly advise repeating it in one or two hours. In addition to the above treatment I advise hot salt solution per rectum ten ounces every two hours principally on account of getting the heat near the hypogastric plexus and splanchnic nerves, also full glasses of hot water to drink for similar purposes; otherwise do not disturb the patient with hypodermics or even raising the foot of the bed—just keep her warm and as comfortable and peaceful as possible.

During the last two years before I conceived this treatment of abdominal surgical shock I had no faith in any of the drug treatment unless, perhaps, atropine for the profuse sweating. I had faith only in salt solution under the breast or per rectum by the drop method, or filling the abdomen at the end of abdominal operations and heat to the external surface of the body, together with physiological rest, *i.e.*, mental and physical repose.

I wish to state some more physiology to show you that this treatment is more nearly directed at the real cause of surgical shock than the ordinary methods of giving salt solution which I had most faith in heretofore. It is generally accepted knowledge, that by virtue of the amazing power of accommodation possessed



by the vascular system as controlled by the vasomotor and cardiac nerves, the total quantity of blood may be greatly diminished or greatly increased without endangering life, or even causing more than a transient alteration in the arterial pressure. It is not until at least a quarter of the blood has been withdrawn that there is any notable effect on the pressure, for the loss is quickly compensated by a constriction of the smaller arteries, and the activity of the heart. An animal may recover after losing considerably more than half its blood. Conversely, the volume of the circulating liquid may be doubled by the injection of blood or normal salt solution without causing death, and increased by fifty per cent. without any marked increase in the pressure. This excess is promptly stowed away in the dilated vessels, especially those of the splanchnic area: the water passes rapidly into the lymph, and is then more gradually eliminated by the kidneys. These known facts when considered show plainly, I believe, that the putting of more liquid into the circulation as normal salt solution by any of the customary routes is not aimed at the real cause of shock. It is of little value as compared with the heat or heat and pressure stimulation of the splanchnic nerves, which produces constriction of the abdominal arteries, veins and portal vein. Also it is to be remembered that the heat applied to these abdominal sympathetic nerve structures on account of the part they play in the regulation of the body temperature produce a dilatation of the peripheral vessels thus relieving the resistance to the heart, and also making the heart beat faster and stronger to get the blood or heat to the surface. If it were not for the heat given off, the body would be heated to the boiling point in thirty-six hours.

I will now give you the history of the case on which I finally used this treatment after I had almost abandoned hope.

Mrs. W., age 53, entered St. Anthony's Hospital November 29th, operation abdominal hysteromyomectomy, Dec. 1st, 1908. Tumor measured  $6\frac{1}{2}$  by  $8\frac{1}{2}$  by 7 inches. Took chloroform well. Operation lasted forty minutes. Sigmoid flexure was adherent to tumor to the extent of four or five inches. Tumor was well supplied with enlarged veins and arteries, however, she lost very little blood through the operation. Raw surfaces were all covered with peritoneum. Intestines were not allowed out of abdominal cavity, and were kept covered with hot salt solution pads. Patient was in good condition during all the time of the operation, and was put to bed in the same condition at 11 a.m. with pulse eighty full and normal strength. About twenty minutes later when she

began to become conscious she received a hypodermic of morphine  $1\frac{1}{4}$  grain and atropine 1-150 grain. She rested quietly with good pulse, warm extremities, very little nausea, and not much pain until 3.45 p.m., when the nurse noticed the pulse getting weaker, at 4 p.m., pulse 100 and very weak. When I arrived at 5 p.m. pulse was 116 and very weak. Patient was bathed in cold perspiration, temperature 97. This patient had had none of the ordinary causes of shock as loss of blood, prolonged operation, handling or exposure of intestines, but she had a large uterine fibroid removed causing more or less negative pressure in the abdominal cavity, and she had been subject to nervous weak spells for years. I had been exceptionally particular about keeping the patient's legs warm after the operation, and ordered the morphine and atropine, at the same time remarking to the nurse that I thought it beneficial to prevent shock as well as making the patient more comfortable. But notwithstanding the warmth and morphine she passed into the condition of shock.

It was very difficult in this case to differentiate between shock and hemorrhage. The foot of the bed was elevated about sixteen inches. Eight ounces of hot black coffee was given by rectum every four hours, alternating it with eight ounces of salt solution, digitalin 1-100 grain was given hypodermically every four hours, extremities were kept as warm as possible. Some fear that it might have been due to hemorrhage deterred me from giving the salt solution intravenously or subcutaneously.

I had to leave the hospital at 8.30 p.m., at which time her pulse was more faint, scarcely perceptible, but rate 124, and respirations were more rapid and distressing. Patient felt very faint and asked for heart stimulants, she continued to fail and by midnight pulse could only occasionally be felt at the wrist. Dr. Treadway, the house surgeon, was called to see her at 2 a.m., and again at 4 a.m., and could not find any pulse in either wrist at either time. The nurses could not find any pulse at 6 or 7 a.m., and patient's face was blanched, and respirations were entirely costal and very distressing. Patient was vomiting some green bile. The nurses and house doctors were looking for her to die any time after midnight. I arrived at the hospital at 8 a.m., and found her merely alive, no pulse could be found at either wrist, and breathing was very difficult and rapid. Her face and lips were blanched. The foot of the bed was still on chairs, I had almost given up hope. I ordered a pint of normal salt solution subcutaneously under the breast, and at once took two silkworm gut sutures out of abdominal

wound, and with sharp pointed scissors and probe pried open the fascia and peritoneum, and could see the glistening omentum and intestines showing no hemorrhage or peritonitis. I at once, with sterilized glass tube of 1-3 inch diameter, inserted into the abdominal cavity to the distance of four or five inches up behind the omentum and transverse colon, allowed one pint of hot normal salt solution to run in rapidly (time about six seconds) she did not have much pain during the first few seconds of the time, but had a great deal during the last few seconds. Abdominal cavity now seemed full. The glass tube was removed quickly and no solution allowed to run out. A narrow strip of gauze and adhesive plaster was applied. I quickly felt the wrist and found a distinct regular pulse of full strength, but radial artery had only 1-3 normal calibre, after an absence of the radial pulse for seven or eight hours. This pulse did not disappear or weaken again, but the radial arteries gradually increased in calibre all day and at 5 p.m. were of normal size. The abdominal binder was kept tight all day. The salt solution under the breast was apparently not absorbed until after the pint of hot salt solution was put in the abdomen nor until after the pulse returned. The return of the pulse was instantaneous or must have been within one or two minutes of the shock and pressure of the hot solution run into the abdomen. Foot of bed was put down on the level, off the chairs, just before the salt solution was put under the breast, and the hot solution in the abdomen, showing that elevation of the foot of the bed was probably of little or no use.

Lawson Tait, in 1887 advanced the introduction of large quantities of sterile water into the peritoneal cavity before closing the abdomen while the patient was still under the anesthetic. This has been done since that time by many surgeons. Crile states that this method is equivalent to introducing saline solution by subcutaneous infusion. Crile also states that this is a good thing to do at the end of an abdominal operation that is attended by profound shock. But this putting salt solution into the abdominal cavity when the patient is under the anesthetic, the reflexes being depressed is an entirely different matter from the treatment I recommend. Nowhere can I find in the literature any suggestion or intimation of this treatment of abdominal surgical shock. Although I have as yet only tested it on one case, the reaction was so marked, so immediate and permanent and the best and latest knowledge of the physiology of the vasomotor nerve mechanism together with the clinical picture of the case I reported convince

me that this treatment is more rational than any yet advocated. But the surgeon must see that every detail of the treatment is carried out accurately and recovery not prevented by too many hypodermics.

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<sup>3</sup>Lander Brunton, Therapeutics of Circulation, P. Blakiston's Son & Co., 1908, p. 45.

<sup>4</sup>Stewart Physiology, 1905, p. 144.

<sup>5</sup>Stewart Physiology, 1905, p. 147.

<sup>6</sup>Landois Physiology, P. Blakiston's Son & Co., 1905, p. 288.

## Medicine

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GRAHAM CHAMBERS, R. J. DWYER, GOLDWIN HOWLAND, GEO. W. ROSS, WM. D. YOUNG.

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### **The Value and Limitations of Salt-Free Diet and Restriction of Fluid in Nephritis.** VICTOR C. VAUGHAN, *Jour. Am. Med. Ass'n*, Nov. 27, '09.

The inorganic salts of normal urine carry about 85 per cent. of the toxicity of this fluid, potassium chloride being the most toxic, while 15 per cent. is due to the organic constituents, and these probably partly neutralize each other. Urea and uric acid, so far as their toxicity is concerned, are not important—that is they are not important as neither is active in causing the symptoms resulting from failure in functioning. Neither are the inorganic constituents, especially potassium, to be set down as the cause of uremia. Dr. Vaughan is certain that in withholding salt from nephritics we do not withhold the direct cause of uremia. We simply, by the use of a salt-free diet, protect the kidneys by to a certain degree decreasing their labor. Poisoning due to retention of urine and uremia are two different and distinct things. The poison results in uremia from a radical change in metabolism; an active agent is produced; it is not one of the normal constituents of the urine. Widal in 1903 suggested that nephritic edema was due to chloride retention; that as edema disappeared chloride elimination increased; therefore, a diet largely salt-free was the proper treatment of the edema of nephritis—probably good reasoning, but not always borne out by the experience of clinicians. Hence it was suggested that the milk diet owed its success to the small amount of sodium chloride it contained. In acute nephritis edema is due to the effect of poisons on the walls of the vessels; in many cases of chronic, to circulatory disturbances and so best treated; in amyloid, toxic; in a small number of chronic parenchymatous it is markedly influenced by the quantity of salt in the food; in these the best results follow from the salt-free diet. Dr. Vaughan considers that the best good is accomplished in restricting salt in the pre-nephritics, men and women past the prime of life, unduly energetic, often of good habits, but overworked; heart unduly taxed; blood pressure high; getting out of breath easily; occasionally dizzy; probably a



trace of albumin. To these the salt-free diet would be advantageous. In any form of nephritis he has never seen any benefit in denying the patient the satisfaction of his thirst with water; and it seems to him to limit fluid in nephritis so far as possible without distress to the patient.

G. E.

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**The Position and Work of the American Pediatric Society Toward Public Questions.** By THOMAS MORGAN ROTCH, *Archives of Pediatrics*, October, 1909.

The child labor question, which, as is well known, is particularly bad in the Southern States, may be set down as the object Dr. Rotch had in view when presenting this paper to the American Pediatric Association, as well as the position the Association should assume on public questions in general. That a Pediatric Society composed of physicians who have an undoubted general knowledge of children in safeguarding early life should, as Dr. Rotch affirms, take an active part in all movements which will tend to ameliorate the undoubted wrongs of the young people of any country, all will certainly agree. There is now a child labor bureau as a part of the Department of the Interior of the United States Government; and many women have interested themselves in the child labor movement. Dr. Rotch believes it to be the duty of physicians to counsel and guide in this movement. A movement is now on foot to increase the age in years before a child shall be employed, especially in the cotton mills; and Dr. Rotch considers it would be unwise to pass a universal law, owing to the difference in development of children in different races and families and in different parts of the country. In South Carolina the age limit is now ten years, and it is proposed to make universal fourteen years as the age limit. It is easy to see that boys of 13 to 14 are thus thrown on the streets and become loafers, where they are well fitted to earn their livelihood by light employment. As he wisely points out, matters of this character cannot be regulated by years, consequently rules for regulating will be elusive and wrong. Physicians should study the force-outcome for different employment, and with a physical developmental index, laws for age limits may be dismissed. Dr. Rotch believes that a radical reform is needed in organization, especially in kindergartens and schools, which reform should be based on an anatomic index; and that it is not for the educators to know what is best in this respect, but the physician. A society of this character should act in an advisory capacity on the question of the work of safeguarding early life and, if necessary, oppose educators and child labor committees where they are known by pediatricists to be

pursuing the wrong course. There is apparent great need for educators, philanthropists, lawyers and pediatricians getting together on these questions.

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G. E.

**The Treatment of Pulmonary Tuberculosis Based on the Assumption that the Dietetic Cause of the Disease is Lime Starvation.** JOHN F. RUSSELL, *Medical Record*.

As lime forms about three-quarters of the total mineral solids of the body, it has been a subject of speculation whether a deficiency might be the cause of disease. Milk first, eggs next contain the greatest amounts of lime salts, and these two foods largely predominate in the modern treatment of tuberculosis.

Speculating in the summer of 1906 on the manner of absorption of lime in milk, Russell in his New York dispensary practice considered that if the gastric secretion lacked rennet, combination of lime and casein would not be absorbed in a form suitable for tissue nutrition. He first experimented and worked out two hypothetical considerations, viz., first, that lime starvation may be the dietetic cause of tuberculosis; second, that the action of rennet in the stomach is necessary in the preparation of lime for absorption. The tuberculous patients he separated into two classes: (1) those whose disease is the result of a sufficient supply of proper food; and (2) those whose disease is the result of a deficient production of rennet. Beginning with rennet clotted milk, then this and dilute hydrochloric acid, he subsequently adopted about July the milk-egg-hydrochloric mixture, to which now he wholly pins his faith. The milk-egg-acid mixture he has prepared in this way: Two eggs are beaten, strained and mixed with sufficient milk to make one quart. To each quart of this mixture four drachms of dilute hydrochloric acid are added and stirred until thoroughly mixed. The mixture is then bottled and put in the ice chest. Experiments over some time established the above amount of acid. Patients drink one pint at the morning hour and one pint at the evening hour in divided glasses. The patients took this at the dispensary and at home other raw eggs immediately after food. From the first employment of the rennet-clotted milk up to November, 1909, 22 are apparently cured or 46.80 per cent. of the whole number treated; and 25 or 53.20 per cent. are still under treatment. From the re-examination of 12 patients two years or more after apparent cure only two show presence of tubercle in their sputum. In all but these two the general health is put down as "good," in these two "fair." No patient was admitted for treatment whose sputum did not show tubercle bacilli.

G. E.

## Surgery

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WALTER McKEOWN, HERBERT A. BRUCE, W. J. O. MALLOCH,  
WALLACE A. SCOTT, GEORGE EWART WILSON.

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### A Disease of the Gall Bladder Requiring Cholecystectomy.

B. G. A. MOYNIHAN, M.S., F.R.C.S., of Leeds, Eng., Surgeon  
to the Leeds Infirmary. *Annals of Surgery*, Dec., 1909.

This abstract of Mr. Moynihan's paper is taken from the December, 1909, number of *Annals of Surgery*—Jubilee Number. We wish to extend to the editors of *Annals of Surgery* our most hearty and sincere congratulations on their magnificent "Jubilee Number," which marks the completion of the fiftieth volume of this most excellent journal. We know of no single journalistic issue which contains such a brilliant and extensive array of original papers dealing with purely surgical subjects. To glance over its Table of Contents, with 23 different papers, by a varied and distinguished list of authors, and to read the appreciative "Beginnings of the *Annals of Surgery*," by Roswell Park, is to be deeply impressed with the splendid development of the "*Annals*" through the past few years, and with the most important place it holds in the realms of surgical literature to-day. Again, congratulations, and all good wishes for the future.

Mr. Moynihan expresses the opinion that doubtless many surgeons have operated on patients supposed to be suffering from gall-stones, when an examination of the gall-bladder and the ducts has revealed the existence of no calculus. The incorrectness of the diagnosis has often been explained by the doubtful existence of chronic pancreatitis, or by the presence of a thick, ropy, "tarry" bile, which has been thought to escape down the ducts with as much difficulty as a solid concretion. Such cases were seldom permanently relieved by cholecystotomy.

\* During the past two years he has come across a series of cases revealing a condition of which he was previously unaware, and one which he thinks will explain the condition of "cholecystitis without gall-stones."

Briefly, the history of such cases is one in which there has been a period of "indigestion," lasting for months, sometimes for years. There have been discomfort, a sense of weight, fulness or distention after meals, and heartburn or acidity, and in consequence the diet



may have been much restricted. At intervals, "attacks" of pain occur, attacks which are usually severe, sometimes agonizing, and may be attended by shivering. The pain in all its attributes is exactly that described as "hepatic colic," and a faint tinge of jaundice may follow. After an attack the gall-bladder may be palpable, and for some days a sense of soreness and of stiffness may be felt in the side. On such evidence as this a confident and most reasonable diagnosis of gall-stones may be made. When the abdomen is opened, the gall-bladder may appear to be quite healthy. In one of his cases, the gall-bladder was absolutely normal in appearance; it had the blueness of health, and the gland by the side of the cystic duct was not enlarged. In this case, as in all, the bile was found to flow with difficulty when a needle was thrust into the gall-bladder. The bile is thick, dark in color, tenacious, and often sticky. As it flows on to a swab, the sparkle of cholestrine crystals may be seen. It is at this point that the mistake may be made of completing the operation by inserting a tube into the gall-bladder and in being content with drainage. If now the interior of the gall-bladder be inspected, a curious appearance is presented.

The whole of the mucosa is thickly dusted with fine stones; the stones are numberless, of small size, and they fit snugly into the pits on the reticulated surface of the mucous membrane. The fine calculi are indeed embedded in the wall; they cannot be brushed away, and scraping the surface with a spoon or with dry gauze does nothing to move them. When the whole interior is displayed, it is seen that the number and size of the fine stones increases as the cystic duct is approached; at the beginning of the duct they stop abruptly in a perfectly straight line. The mucosa of the duct itself is usually intact, smooth and free from all trace of grit. The wall of the gall-bladder itself may appear normal, or it may be thickened at the fundus and normal elsewhere, or it may be white and slightly thickened, or finally it may be dense, thick, opaque, with a cavity much reduced in size. Every grade of cholecystitis—from the mildest to the very severe—has been met with. The most common condition is to find the gall-bladder almost normal, retaining much of its natural blue color, and all of its smoothness and suppleness. These are the cases it is most essential to recognize, for in them also the removal of the gall-bladder is the only course of treatment likely to be attended by lasting success.

In two of his cases there was well-marked chronic pancreatitis, excited, doubtless, by the repeated irritation of infected bile.

He draws the following conclusions:

1. There is a condition of the gall-bladder in which fine grains of calculus material are embedded in the mucosa; the cystic duct is not affected.
2. The wall of the gall-bladder may appear normal. It may retain the blue color of health, and the walls are thin and supple. It may be white and thickened, slightly or grossly, in part or in whole.
3. No stones are free in the gall-bladder, though particles of grit may be found in the bile therein.
4. Chronic pancreatitis may be present in the more advanced cases.
5. Inspection of the mucosa of the gall-bladder is necessary to reveal the presence of this condition in its early stages; it cannot otherwise be recognized.
6. Removal of the gall-bladder is necessary; drainage of the common duct may be desirable in cases where jaundice has been present.

He cites three cases, giving the history of each in detail, which we need not repeat here. Suffice it to say they corroborate fully all he has said on the subject. The paper shows three fine illustrations, in color, of the removed gall-bladder of each case, already referred to. The illustrations show the interior of each gall-bladder studded with fine grains of cholesterin stones.

We feel that, in this paper, Mr. Moynihan has made a most valuable contribution to the subject of gall-bladder surgery, and one which would well repay any of our readers to go over the original paper, with its interesting case histories. Personally, we recall a few cases which came under our own observation, where, a diagnosis of gall-stones having been made, the gall-bladder was tapped of a considerable quantity of thick, tarry bile, which was drained away with some difficulty, subsequent palpation of the gall-bladder giving no sign of stone. These cases were all drained, and in at least one of them the result was not satisfactory. In the light of this paper of Mr. Moynihan's, it will be interesting to note the comparative frequency of this condition with that of true gall-stone, in the future.

T. B. R.

## Psychiatry

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W. C. HERRIMAN, ERNEST JONES.

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**Treatment of Locomotor Ataxia by a Modification of the Re-educational Exercises.** FRUCHTBANDLER. *New York Med. Journ.*, Oct. 2, 1909. P. 635.

The extremely valuable results obtained by Frenkel in his re-education treatment of the ataxia of tabes need a complicated apparatus. Fruchtbandler has simplified the treatment so that it can be applied by the general practitioner. He here gives a detailed description of the exercises he employs. The indications he mentions for stopping treatment during a seance are important.

E. J.

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**A Study of the Traumatic Insanities** A. C. BRUSH. *Journ. of the Amer. Med. Assoc.*, Oct. 2, 1909. P. 1081.

The writer holds that three psychoses may be produced by trauma: (1) traumatic hypochondria, (2) acute primary traumatic insanity, and (3) organic dementia. In the latter two organic changes are present, due to minute lacerations, hemorrhages, etc.

E. J.

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**Some New Fields and Methods in Psychology.** FREDERICK PETERSON. *Med. Rev.*, Nov. 13, 1909.

This is a short and popular account of some of Freud's and Jung's recent discoveries. Peterson first descants on how much the medical practitioner loses by ignoring the study of morbid psychology, which is of inestimable value in connection with both the understanding and treatment of so many disorders. He points out how important is the sub-conscious buried mental life in both the normal and abnormal. The word-association test, as used by Jung, now enables us objectively to verify the presence and activity of various sub-conscious emotional "complexes." Freud's psycho-analytic method makes it possible to reach and deal with these complexes, which are at the root of psycho-neurotic symptoms. He mentions the interesting resemblances between the structure of dreams and insanity. Dreams are intervals of insanity, from which one wakes up. However bizarre, incoherent and chaotic they may

appear on the surface, they are always the distorted presentation of perfectly logical and highly significant mental processes that are unknown to the subject. By Freud's technique, it is now possible to interpret them, and thus reach the most hidden wishes of the subject. Dream interpretation is the most important part of psychotherapy.

E. J.

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**A Statistical Study of Alcoholism as a Causative Factor in Insanity.** C. R. McKINNISS. *Medical Rec.*, Nov. 27, 1909.

After mentioning some previous statistics on this matter, the writer shortly gives his own experience. He states that, of 520 male patients, alcohol was an important etiological factor in 46 per cent.; 13.5 per cent. of all the cases were classed as alcoholic psychoses. In 41 per cent. of the imbeciles and 34.5 per cent. of the epileptics, alcohol was responsible for commitment. Like so many other writers, McKinniss does not distinguish between the finding history of alcohol and the determining of how far this was actually operative; the figures are therefore of comparatively little interest.

E. J.

## Reviews

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*The Annals of Surgery* completes its fiftieth volume.

The December number of the *Annals of Surgery* (Philadelphia), which completes the fiftieth volume of that journal, is worthy of more than passing notice. It is a jubilee number, and, by its size and the character of its contents, fitly marks so important an event in its history. The cosmopolitan character of the journal is seen from the list of contributors, which comprises the leaders in surgery of England, Scotland, Denmark, France, Italy, Hawaii, Canada and the United States.

Twenty-two articles form a number of more than four hundred pages. The illustrations, some of which are colored, are profuse, making a volume which merits the term of a jubilee number. Such an event in the history of any medical journal is worthy of note.

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*American System of Surgery.* Bryant and Buck. Vol. II. New York: Wm. Wood & Co.

This volume contains a vast amount of information upon various subjects. There is a well-written article on plague, leprosy, actinomycosis, anthrax, madura foot, etc. Tuberculosis and syphilis are dealt with in a general way. A further section deals with a miscellaneous group, including ulceration, abscess, skin diseases, surgery of nerves, tendons and glands. Burns and frost bites take up another section, while the last part treats of wounds by various instruments, including gunshot wounds.

On the whole the volume is well written and the knowledge imparted is trustworthy. Occasionally one meets with some overlapping, but this is to be expected in a work of this nature. One writer advocates excision for keloid, while another points out that operation is useless owing to the extreme likelihood of its return, an objection which we think holds good.

The article on gangrene is especially good, and in our opinion is equal to anything extant. The chapter on the Surgery of Nerves is, however, disappointing. The writer, we believe, advocates certain procedures and holds views that are to-day untenable and not in accord with the greatest authorities. For example, turning down a flap from the proximal end of a divided nerve to bridge a gap, or in adopting a similar procedure in case of a bulbous extremity instead of excising the whole. He takes sides with Balance in



believing that nerve regeneration is peripheral in origin and not central, as held by most physiologists. Then he fails to tell his readers the difference between a complete and incomplete division of a nerve—the treatment being as widely separated as the seas—and hence no prognosis can be arrived at.

The paragraph dealing with the median nerve opens with the following sentence: In paralysis of the median the thumb and little finger cannot be brought against each other. This statement is common enough in text-books, but is not accurate. If the median were divided high up before the branches to the flexors came off it would hold, but the nerve is usually divided just above the wrist, and in such cases the thumb and little finger can be approximated. The fallacy lies in the belief that such movement is brought about by the abductor pollicis, which is supplied by the outer branch of the median, whereas it is the flexor longus pollicis which is the cause of the movement. The only movement the individual with a divided median cannot perform is to raise the thumb at right angles to the outstretched index finger, a motion which is produced by the abductor pollicis. It is for this reason that a divided median nerve is so often overlooked when the writer attempts to deal with the anatomy of certain nerves he gets hopelessly muddled. We do not look for anatomists among surgeons, still the latter cannot afford to play fast and loose with anatomy when committing their thoughts to paper.

G. E. W.

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*Webster's New International Dictionary.* Editor-in-Chief, DR. W. T. HARRIS, late U. S. Commissioner of Education, Springfield, Mass., U.S.A.: G. & C. Merriam Co.

The new Webster's International Dictionary is a magnificent specimen of the lexicographer's art. It contains over 400,000 defined words and phrases, so arranged in divided pages that the less familiar words are classified at the foot of each page by themselves. The volume embraces 2,700 pages, and being just issued and new from cover to cover, presents essentially a new dictionary of the English language. There are 6,000 illustrations, which in their selection and execution display accuracy as well as utility. Over 100 years ago Noah Webster began work on an American Dictionary of the English language. In 1828 he had published the first edition in two quarto volumes. The vocabulary contained 70,000 words. The second edition was issued in 1840, and since 1843 up to the present time, under the management of a single publishing house, it has gone on steadily and consistently developing until to-day it stands pre-eminent in its own particular field, a wonderful and mighty monument both to editors and publishers alike. From

70,000 words to 400,000 words and phrases in 70 years is a stupendous stride, and one can form but a little conception of the immense amount of work the editors have had to perform in arranging this new work and taking as their guide the 175,000-word edition of 1900 (the last), even although one is told it took six years to bring this new work to its present condition of magnitude and perfection. To any teacher, professor, professional man, business man, manufacturer, educationist or student the work will far more than repay for the very reasonable outlay of \$12.00 its purchase. No educational institution, and certainly no editorial office of whatever description can afford to be without this exact and comprehensive production of the Merriams.

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*Public Health* (Catechism Series). Second Edition. Revised by W. ROBERTSON, M.D., D.P.H., Medical Officer of Health, Leith. Price per part 1s. net; 4s. 6d. for the five parts. Edinburgh: E. & S. Livingstone.

This Catechism Series on Public Health is issued in five paper-covered parts, averaging between forty and fifty pages each. Part I. treats of questions with regard to Water and the answers thereto; II., Air and Ventilation, Warming, Lighting and Climate; III., Sewage and Its Treatment; IV., Vital Statistics, Dwellings, Meteorology; V., Epidemiology, Food, Burial, Water Closets, Disinfectants, Heating, Hospitals. The student of public health will appreciate this handy, educative series, and the general practitioner will find it of service in case of a rapid review.

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*The Smiths of Valley View.* Being Further Adventures of the Smiths of Surbiton. By KEBLE HOWARD. London, New York, Toronto and Melbourne: Cassell & Co., Limited.

This is a rather racy sketch of country life in England, interspersed now and again with a visit to some near-by watering place. There are several humorous incidents, and it is quite a matter-of-fact narration. Interest in the doings and happenings of the Smith family is well sustained throughout.

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*The Shoulder-Knot.* By MRS. HENRY DUDENEY. London, New York, Toronto and Melbourne: Cassell & Co., Limited.

A novel of a slight psychological turn: ordinary setting; disjointed dialogue, being more interesting in the latter than the former half. The plot seems to be a trifle weak.

*The Romance of Michael Trevel.* By JOSEPH HOCKING. London, New York, Toronto and Melbourne: Cassell & Co., Limited.

In this well-written and absorbing life of a young Methodist minister in Cornwall we have a story which holds the attention from start to finish. Probably the marriage scene is a little far-fetched, but the reader is not sorry at the denouement. There is a touch of Hardy in the well-handled plot.

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*Fifth Annual Report of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis.* Edited by JOSEPH WALSH, A.M., M.D. Published by the Henry Phipps Institute, Philadelphia.

Nearly 90 pages are devoted to a clinical and sociological report; an exhaustive study of the bone-marrow of cases dying of pulmonary tuberculosis, including detailed histories of 57 cases; the opsonic index in pulmonary tuberculosis; including a comprehensive pathologic report for the year ending Feb. 1, 1908, makes this a valuable annual contribution to the widely-interesting subject of tuberculosis.

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*The Morphia Habit, and its Voluntary Renunciation.* By Oscar Jennings, M.D. London: Bailliere, Tindall & Cox, 1909. 7s 6d net.

The opening sentence of this book contains the astonishing statements that one medical man out of four is a drug habitué, usually a morphinist; that in some statistics 90 per cent. of morphinists are medical men, and that one-fifth of the mortality in the medical profession is caused by morphinism. We are in no position to criticize these figures, and can only repeat that we find them astonishing. In the later chapters, the author expounds his method of treatment, which consists essentially in the administration of Vichy water and Sparteine, at the same time that the drug is being gradually and voluntarily reduced. He rightly condemns sanatorium treatment, with forced deprivation, and above all, sudden deprivation. Unless full self-control is re-established, the cure is unsatisfactory. A good point made is that frequently a stage is reached when the patient is taking but little morphine, and considers himself now cured, in that he believes he can drop the small remaining quantity without further treatment. If this attitude is acquiesced in, relapse will surely occur, and all cases should be treated to the very end. Hypnotism is discarded.

The author's previous book is generally considered to be the

leading one in the English language. We do not wish to deny that, for there are very few books on the subject in English, but it is not to be necessarily inferred that this eulogy is of great value. In our opinion, this volume, though containing many useful points for the practitioner, is very superficial. No attempt is made to analyze the origin and pathological nature of the abnormal craving, although our knowledge of this subject is now, thanks to the fundamental work of Abraham and other German writers, far advanced. Not until we penetrate more deeply into the essential psychopathology of the condition do we obtain that insight into the nature of it which is necessary for the satisfactory and permanent treatment of it.

E. J.

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*The Physician's Visiting List* (Lindsay & Blakiston's) for 1910. Fifty-ninth year of its publication. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. Price: \$1.00 net.

It would indeed be difficult to imagine a more complete and compact visiting list than this. When one recalls that this is the fifty-ninth year of its publication, it speaks volumes for its worth. The smallest size provides for 25 patients per week; larger sizes are to be had, suitable for 50, 75, or 100 patients per week.

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*Canadian Almanac.*

This is the 63rd of the series, and so far as the medical profession goes, will be found of the utmost value in a general way. We believe the profession of medicine throughout Canada would welcome a list of medical practitioners of the Dominion, which might well be incorporated in the *Canadian Almanac*. It should be a valuable addition to the *C. A.*, especially if brought up to date each year, as there is no similar list that is or would be so readily available for physicians and those doing business with them.

G. E.

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*Clinical Examination of the Urine and Urinary Diagnosis.* By J. BERGEN OGDEN, M.D., Medical Chemist to the Metropolitan Life Insurance Company, New York. Third edition, revised. Octavo of 427 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$3.00 net. Canadian Agents: The J. F. Hartz Co., Ltd., Toronto.

In this very excellent work the author has divided the subject matter into two parts:



Part I., dealing with chemie and microscopic methods in detail and

Part II., dealing more especially with diagnosis and differential diagnosis of disturbances and diseases of the kidneys and urinary passages, whether local or general, medical or surgical; and the peculiarities of the urine in certain general diseases of the body.

As the author says in the preface: "My chief object in presenting this work is to furnish the student and practitioner with a more complete clinical guide to urinary diagnosis than I have heretofore met with in a single volume"; and we think he has succeeded most admirably. At the close of the work will be found three appendices.—

a. On examination of the urine for the purpose of life insurance.

b. On the method of recording urinary examinations.

c. Treating of reagents and apparatus for qualitative and quantitative analysis of urine.

T. B. R.

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*A Text-Book of Obstetrics.* By BARLOW COOKE HIRST, M.D., Professor of Obstetrics in the University of Pennsylvania. Sixth edition, revised and enlarged, with 847 illustrations, 43 in colors. Price: Cloth, \$5.00. Philadelphia: W. B. Saunders & Co. Canadian Agents: J. F. Hartz Co., Toronto.

This edition of Doctor Hirst's text-book is replete with information and suggestions for the treatment of this important division of medicine.

The book is especially to be commended to the young practitioner, for the author gives very complete instructions for the treatment of the more serious conditions which may arise at any time, such as eclampsia and post-partum hemorrhage. A new feature of the work is the introduction of descriptions of the commoner operations of gynecologic surgery. Whether this is wise remains to be tested further. Altogether the work is a splendid example of a good, sensible text-book, conservative in method, and wise in its conclusions. I should certainly recommend it very highly to the young practitioner.

A. C. H.



# Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

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TORONTO, JANUARY, 1910.

No. 1.

## COMMENT FROM MONTH TO MONTH.

**Milk and its Products.**—Under this heading, the laboratory of the Inland Revenue Department, Ottawa, has sent out a circular, setting forth a scheme of proposed food standards, which are to be incorporated in the Food and Drugs Act. The following definitions are proposed:

1. *Milk* is the fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows, properly fed and kept, excluding that obtained within two weeks before and one week after calving, and containing not less than eight and one-half (8.5) per cent. of solids not fat, and not less than three and one-quarter (3.25) per cent. of milk fat.

2. *Modified milk* is milk changed in its composition so as to have a definite and stated percentage of one or more of its constituents.

3. *Skim milk* is milk from which a part or all of the cream has been removed, and contains not less than nine and one-quarter (9.25) per cent. of milk solids.

4. *Pasteurized milk* is milk that has been maintained for twenty minutes at a temperature of 150 deg. F., or for thirty minutes at a temperature of 140 deg. F., and immediately thereafter refrigerated to at least 45 deg. F., and kept at that temperature until delivered to the consumer.

5. *Sterilized milk* is milk that has been heated at the temperature of boiling water, or higher, for a length of time sufficient to kill all organisms present. Sterilized milk shall not be sold, or offered for sale, except in hermetically closed containers, bearing the words, "This milk should be used within 12 hours after opening the bottle."

6. *Certified milk* is milk examined and guaranteed by any Local Board of Health or incorporated Society or Association of legally qualified medical practitioners:—

(a.) To be from cows semi-annually subjected to the tuberculin test, and found without reaction.

(b.) To contain not more than 10,000 bacteria per 1 cubic centimetre, on delivery to the consumer.

(c.) To be free from pus, blood, preservatives, or other foreign matters, and not to have been heated.

(d.) To meet the requirements of Section 1 above.

7. *Condensed milk* is milk from which a considerable portion of water has been evaporated, and contains not less than twenty-six (26) per cent. of milk solids, and not less than seven and one-quarter (7.25) per cent. of milk fat.

8. *Evaporated milk*, etc., is milk from which a considerable portion of water has been evaporated, and contains not less than twenty-six (26) per cent. of milk solids, and not less than seven (7) per cent. of milk fat.

*Note.*—Commercial usage appears in the main to be in harmony with the employment of terms as above defined.

Equivalent names are not interdicted so long as they do not violate the fundamental principle of truthfully describing the article. The use of the word "cream" as a name for evaporated milk is expressly forbidden. Sugar may be present in either Condensed or Evaporated milk, but ordinary usage restricts the name Evaporated milk to a product which contains no added sugar. The present U.S. standard requires 28 per cent. solids and 7.7 per cent. fat; but these requirements are not enforced since March 16, 1908, and have been claimed to be impracticable.

9. *Condensed skim milk* is skim milk from which a considerable portion of water has been evaporated.

10. *Buttermilk* is the product that remains when butter is removed from milk or cream in the process of churning.

11. *Goat's milk*, *ewe's milk*, etc., are the fresh, clean, lacteal secretions, free from colostrum, obtained by the complete milking of healthy animals other than cows, properly fed and kept, and conforming in name to the species of animals from which they are obtained.

**That Alcohol is Exceedingly Dangerous to the Human Subject** is borne out by the report of the experiences of the Henry Phipps Institute, of Philadelphia, as set out in the fifth annual report for 1908. In connection with the influence of alcohol on the tuberculous subject, this fact stands out prominently. Its influence is pernicious, and it is safe practice to abstain from it altogether.

It is a striking fact that, both as regards personal history and heredity, the number of patients applying for treatment at the Institute shows a decrease. During the second year of the work of the Institute, personal history of alcoholism was given in a percentage of 22.94, and 77.05 denied it; in the third year 24.05 per cent. and 75.94; in the fourth year, 24.86 and 75.13. During 1908, 15.87 per cent. and 84.12 per cent.

Those who admitted alcoholism in the preceding generation were in the second year 24.81 per cent.; not, 75.18; in the third year, 26.90 and 73.09; in the fourth, 27.78 and 72.21. During 1908 those admitting it were 17.43 per cent.; denying, 82.54. Of all the patients treated during the current year (1908), 75.90 per cent. denied its use both for themselves and their preceding progenitors.

Of those who admitted a personal history of alcoholism, the mortality was 100 per cent. higher than in those who denied it; whilst, as regards the preceding generation's habit, the mortality was 80 per cent. higher than in those who denied it. In non-alcoholics, the percentage of improvement was 30 greater; in the preceding generation, 10 greater.

The percentage of disease arrested shows greater in alcoholics than in non-alcoholics in two years, and the same was true of those who admitted alcoholism in the preceding generation, but the difference is not great. This is singular and peculiar enough to account for the once popular idea that alcohol exerted a beneficial influence in tuberculosis, but here, as elsewhere, the exception goes to prove the rule.

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**Tobacco and Tuberculosis.**—The Henry Phipps Institute now has statistics for two years (1907 and 1908) upon the influence of the use of tobacco on the tuberculous. During 1907, 73.01 per cent. of the males used tobacco and 26.98 did not. In 1908, the percentages were 78.95 and 21.04, respectively. In the fourth year, 61.80 per cent. smoked only, while 8.38 per cent. chewed only, and 29.81 per cent. both chewed and smoked. In 1908 the percentages were 63.77, 7.18 and 29.04, respectively.

The mortality amongst those who used tobacco was greater, as was also the case in alcoholism. In 1907, 18.58 per cent. of those who used tobacco died; 5.15 per cent. mortality in those who did not use it in any form, while the percentages in 1908 were 15.30 and 13.51 respectively.

As regards the items, disease arrested, improved and unimproved, there was no appreciable difference amongst those who did not use tobacco.

This seems to show that tobacco, as was the case with alcohol, affords no protection against tuberculosis, and warrants total abstinence from both in this disease, especially when it is in an active form.

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**The Proposed Amendments to the Canada Medical Act,** as the result of the special meeting of the Special Committee on Dominion Registration, of the Canadian Medical Association and representatives from the various provincial Medical Councils, in Montreal, on the 16th of November last, make no changes in the "Short Title" or "Interpretation" of the Act. In the section relating to the "Constitution of the Council," Clause (c) is eliminated, which reads as follows: "The determination and fixing of the qualifications and conditions necessary for registration, including the course of study to be pursued by students, the examinations to be undergone, and generally the requisites for registration."

In Section 7—Composition of the Council—(a) Three members (instead of one member from each Province) from all the Provinces shall be appointed by the Governor-in-Council.

(b) Proportion of elected members changed from first 100, or fraction thereof, one, to for first 500, or fraction thereof, one; and then for the next 1,000, or fraction thereof, one; for all over 1,000, one, and never more than three; and such members representing each Province shall be elected, under the regulations to be made in that behalf, by the Provincial Medical Council.

(d) Three is changed to one (either appointed by Governor-in-Council, or elected by the Homeopaths themselves).

Section 8 is changed to read: The term of office for members shall be four years.

Under Section 10—Meetings—eleven members are to constitute a quorum, instead of twenty-one.

Examinations.—This clause has been changed to read as follows:

Section 11—Regulations—(g) The establishment, maintenance and effective conduct of examinations for ascertaining whether candidates possess the qualifications required, the number, times and



modes of such examinations; the appointment of examiners, and generally all matters incident to such examinations or necessary or expedient to effect the objects thereof.

The word "Canadian" is eliminated from the clause relating to reciprocity with British, colonial or foreign licensing bodies.

In Section 12, Clause (a), which reads as follows, is left out: "The requirements of any curriculum established by the Council shall not, at any time, be lower than the requirements of the most comprehensive curriculum then established for the like purpose in any Province."

The word "Canadian" is eliminated again from Section 18—Registration—in Clause 3, referring to reciprocity with Britain, etc.

The balance of the Act is unchanged. Appended are these suggestions:

(1) One of the three members of the Council named by the Governor-in-Council shall be a Homeopath.

(2) Any examination committee shall be composed of a majority of examiners speaking the language of the candidate.

(3) At any time any Province may retire from the Federal Pact, on a resolution of the Provincial Medical Board, passed on a two-thirds vote, and after three months' notice in the official Gazette.

From a perusal of the proceedings at the special meeting, held in Montreal in November last, we are led to the conclusion that some scheme of Dominion Registration is practically favored by all; that the Province of Quebec is unalterably and absolutely opposed to the Canada Medical Act, as at present constituted, but that that Province would favor inter-provincial reciprocity with all the Provinces, and even would favor Dominion Registration, as exemplified in the Canada Medical Act, if such were shorn of its objectionable features to them, namely, the so-called infringement of the provincial educational rights, as guaranteed to the Provinces under the British North America Act.



## News Items

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MONTREAL had 800 sudden and violent deaths in 1909.

DR. GEO. R. McDONAGH is down with an attack of pneumonia.

MONTREAL has an epidemic of typhoid fever, totalling over 2,000 cases.

DR. WALTER McKEOWN, Toronto, has been spending a few weeks in New York.

HON. DR. J. J. E. GUERIN, Montreal, is a candidate in the mayoralty election of that city.

DR. JOHN L. DAVISON, Toronto, many will be glad to hear, is recovering nicely from an operation for appendicitis.

DR. W. A. RUPERT MITCHELL, ex-surgeon to the Shackleton expedition, has been visiting home friends in Toronto.

TORONTO had 7,839 births, 3,905 marriages, and 5,188 deaths in 1909. The births were 106 less, and the deaths 559 more than in 1908.

ST. JOHN, N.B., has ordered, through its Board of Health, compulsory disinfection of houses where patients have died of tuberculosis.

THE Ontario Medical Council, at its recent special meeting, caused the names of two members of College to be struck from the Register.

DR. S. W. PROWSE, Winnipeg, is returning shortly from Coronado Beach, Cal., where he has been recuperating his health after an attack of pneumonia.

ONLY one doctor was elected in the Toronto municipal elections, Dr. Bryans to the Board of Education. Who said doctors should take an active interest in politics?

IN Toronto in 1909 there were no deaths from smallpox; 77 from scarlet fever; 191 from diphtheria; 70 from measles; 30 from whooping cough; 79 from typhoid fever, and 293 from tuberculosis.

DR. H. C. WILSON, Edmonton, died recently in that city. The late Dr. Wilson was a pioneer physician of the Far West, was at one time Speaker of the North-West Assembly, and Mayor of Edmonton.

DR. E. P. LACHAPELLE, Montreal, is a candidate for the new Board of Control of that city. Dr. Lachapelle is Dean of the Medical Faculty of Laval University, and Chairman of the Quebec Board of Health.

DR. G. S. CLELAND, Toronto, died on the 3rd of January.

DR. L. F. BARKER, Baltimore, addressed the Academy of Medicine, Tuesday evening, the 4th of January.

THE DR. G. A. PETERS' Scholarship is to be established by the University of Toronto in October, 1910.

DR. BRUCE L. RIORDAN, Toronto, is building a fine residence at the corner of Yonge and East Roxborough, this city.

THE Aesculapian Club is a new organization of physicians in Toronto, which holds its first meeting on the 14th inst.

DR. UZZIEL OGDEN, for many years professor of gynecology in the University of Toronto, died at his home in this city on the 4th of January, aged 82 years.

DR. W. A. YOUNG, Toronto, Managing Editor of the *Canadian Journal of Medicine and Surgery*, and President of the American Medical Editors' Association, issued an encouraging Xmas and New Year's card, as follows:

"Smile awhile, and while you smile another smiles; and soon there's miles and miles of smiles, and Life's worth while because you smile."

MEDICAL LIBRARIES IN CANADA.—The New York Academy of Medicine during the past year collected by correspondence the number of bound volumes in the medical libraries of different countries, with the postoffice address and name of the librarian. This information was published in detail in the *Medical Record*, Sept. 25th, 1909, and from the reprint submitted it is seen that Queen's Medical Library, Kingston, has 1,500 volumes; McGill Medical Library, Montreal, 30,000; the Academy of Medicine, Toronto, 6,000; College of Physicians and Surgeons, of Manitoba, Winnipeg, 1,500.

THE Ontario Asylum Service has opened an out-patient department under the title of the Ontario Clinic for Nervous and Mental Diseases. Thanks to the Toronto General Hospital, the patients will be seen on Wednesday and Saturday mornings at nine in the building in Chestnut Street occupied by the Gynecological Service of the Hospital, and the staff will be glad to attend to any cases there that may be referred to them. The aim of the undertaking is to supply advice and help to the patients, with the application of various psycho-therapeutic measures of treatment. Besides early cases of the psychoses, such as dementia praecox, manie depressive insanity, etc., cases will also be accepted of such mental maladies as obsessions, *folie de scrupule*, *folie de doute*, hysteria, phobias and anxiety neuroses. No cases of organic disease of the nervous system will be treated.

## Publishers' Department

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THE REMEDIAL VALUE OF IRON.—Amid all the doubt that modern skepticism and therapeutic nihilism have aroused in the professional mind, in regard to the medicinal or drug treatment of disease, we have yet to hear any question as to the distinct value of iron in anemic, chlorotic and generally devitalized conditions. This metal is, indeed, the physician's mainstay in such cases, and cannot successfully be omitted or replaced. There does exist, however, considerable difference of opinion as to the method of administering iron and as to the most generally eligible preparation of same. The tincture of the olden times, prepared from iron filings, has in these later days been superseded by the less irritant and more tolerable preparations introduced into modern pharmacy. Among such products none has seemed to be so generally acceptable and promptly assimilable as the organo-plastic form represented by Pepto-Mangan (Gude). The ferruginous element in this preparation exists as a true peptonate, in combination with organic manganese, iron's side-partner in reconstructive blood therapy. It is palatable, readily tolerable, quickly absorbable and assimilable and entirely free from irritant or constipating effect. Pepto-Mangan (Gude) rapidly restores vigor to the circulating fluid and because of its blandness and ready tolerability is especially valuable in pediatric practice.

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TROPICAL MEDICINE.—The New York Post-Graduate Medical School is establishing in its new buildings a full equipment of wards and laboratories for the teaching of tropical medicine. The department is being conducted under the co-operation of the U. S. Army, Navy and Public Health Services, who detail officers from their respective Medical Corps to assist in the conduct of the laboratory and clinical courses.

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THE Canadian Medical Exchange wishes us to say that this season of the year is probably the best of any for physicians desiring to sell their practices to offer them, as the Exchange has a great many more bona fide buyers registered with them, who are looking for a location, than they have practices to offer, and Dr. Hamill, who has conducted this important department of medical affairs for many years, would be glad to have the opportunity of opening up negotiations with physicians desiring to sell. The list

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of his offers will be found in the advertising columns of this journal, the complexion of which changes each month. The address is 75 Yonge Street, Toronto.

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CONSTANTLY FAVORABLE RESULTS.—Dr. John Arthur Diggle, Med. Ref. Globe Accident Assur. Soc., of London, Eng., in writing of antikamnia tablets, says: "I may state at the outset that they satisfied me well, and the constantly recurring favorable reports prove that most who have given them a fair and thorough trial are quite satisfied with the results which have followed. They seem to be absolutely safe in exhibition, and to have no effect whatever on the healthy human organism. Such a safe analgesic and antipyretic is a perfect godsend in these days of "nerves" and all the resultant neuralgias developed under our civilization. In the cases in which I have used antikamnia tablets I have never noticed any ill-effects. As an analgesic, in my experience, the sooner the remedy is administered after the onset of pain, the quicker the relief, and the smaller the amount of the drug required; this would follow almost of course, but I think the oftener the dose is repeated in judiciously small doses, the better the result, as compared with larger doses less frequently given. Given in such doses, and at such intervals, I have found antikamnia tablets most useful in neuralgic cases and acute rheumatic attacks, and in sudden nervous attacks with severe pain. In case of paraplegia, in which the suffering from pain in the paralyzed limbs was agonizing, and had only yielded before to gradually increasing doses of morphine hypodermically, their effect was, and continued to be, good. In a case of typhlitis, both the analgesic and antipyretic properties were signally shown. In some cases of dysmenorrhea, one or two tablets relieved the pain, and the after use of cauleorea for a while, prevented its return. The rapidity with which they acted in some cases of migraine, seemed simply marvellous.

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DOUBLE PNEUMONIA.—Mrs. E. D., aged 74 years, of New Durham, N.J., was taken ill in February, 1905. A local physician diagnosed the case as one of acute lobar pneumonia (both lungs), with grave complications. The third day found the patient much worse, and her attending physician and a consultant said there was no possible chance for recovery. At this critical moment, I was called in, after the other medical men were out of the case.

I found the patient unconscious, with marked consolidation of both lungs, stertorous breathing, temperature 105.3-5 deg., pulse 142 (feeble and irregular), respiration 35, and every indication





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of complete prostration. The previous treatment had consisted of an ordinary fever and cough mixture, French brandy at frequent intervals, and the local application of flaxseed to the chest. Little or no nourishment had been taken.

I suggested the immediate discontinuance of the flaxseed, which apparently had no effect, but was merely sapping the little vitality which remained.

My treatment was as follows: The immediate substitution of Antiphlogistine in place of flaxseed to the thorax, front, back and sides at intervals of eight to ten hours, and hypodermics of digitaline and whiskey at proper intervals.

The following morning found the patient slightly improved, fever 104 deg., respiration 28, pulse 132, and still unconscious. I was delighted however, to find that, ten hours afterwards, she had regained consciousness, and that the general symptoms were still further improved.

I then ordered nonrishment in the form of milk, broths, etc., and the addition of aconite to the treatment. From that time on, the patient continued to improve daily, with no further aggravation of the symptoms, and at the expiration of two weeks she had quite recovered.

While I am willing to give the digitaline, whiskey, aconite and nonrishment proper credit for their part of the work, I am thoroughly convinced, and do not believe I could be persuaded to the contrary, that the persistent and proper use of Antiphlogistine was responsible for the woman's recovery.—By H. S. Emerson, M.D., of Paterson, N.J.

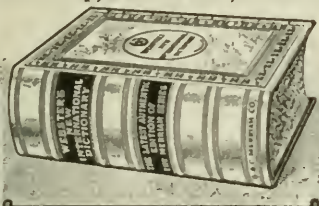
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WORD BLINDNESS.—It is scarcely open to question that all education should be individual, but unfortunately this requirement cannot be met in our crowded schools. The State is compelled to require a definite amount of knowledge from all engaged in the same course. The difficulties to which this may give rise are illustrated by the following stories of pupils, who, despite earnest endeavor could never learn to write correctly, or to read fluently, or to pass the examinations provided for the lowest classes, although some of them are able to accomplish important scientific work. A perfectly healthy fifteen-year-old girl, one of the best pupils of the highest class of a German school, could not spell correctly either German or foreign words, either from dictation or from memory. She could write single characters perfectly; she could also read a single series of musical notes, and play the violin by note, but she could not read piano music. The difficulty was that she was unable to impress the picture of a word on her memory. By the

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**Alcoholism**

About ten years ago strong influence, by each of two opposing interests, was brought to bear to induce the Ontario Government to adopt medical treatment for inebriates in the penal institutions of the province by the use of secret or proprietary remedies. The matter was referred to the Prisoners' Aid Association of Canada, and Dr. Rosebrugh was commissioned to visit in Canada and the United States, interview specialists, and report upon the most scientific method of treatment of inebriety. Upon his return he reported strongly against the employment of secret remedies, and the Government declined to grant the request referred to. Since then Dr. Rosebrugh has made the treatment of inebriates a special study, and his practice is limited to this specialty.

Correspondence welcomed.

ADDRESS—

**A. M. ROSEBRUGH, M.D.**  
 Secretary of Ontario Society for the Reformation  
 of Inebriates

76 Prince Arthur Ave., Toronto, Ont.

employment of a great number of aids to memory, she succeeded in making much progress, but she continued to make the most incredible errors in writing, which sharply contrasted with the general excellence of her work at school. She could not read fluently, because the image of the word was not present to her memory.

The girl's grandmother, a highly-educated woman, her great-uncle, and a son of the latter exhibited the same defects. Each of the men wrote a number of scientific works, but the spelling had to be corrected by others.

In this case, therefore, this same defect, which the English call "word blindness," appeared in four members of one family. As we know that the brain contains a special centre for the memory of words, we must conclude that the entire absence of this elementary faculty in persons otherwise of good mental equipment, must be caused by a defect of this small part of the brain. As such persons cannot satisfy the requirements exacted in the lowest classes, they are in danger of never reaching the higher ones. In London, one case of word blindness was found among each two thousand school children. With proper appreciation of the conditions, it should be possible to carry on the education of such a child if otherwise intelligent. This, however, cannot be done by the school; it must be accomplished by the parents or by benevolent societies.—Umschau.

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THE RADIUM INSTITUTE of America was formed at a meeting in the building of the New York Yacht Club recently. The purpose is to study radium, discover any radioferous deposits in the United States, and buy quantities of it in Europe for clinical use in the United States. It is the idea of the founders to establish a clinic in connection with some New York hospital, where radium treatment will be administered free to those needing it. The institute will take steps to protect the public from the false claims of patent medicine manufacturers, that certain of their remedies contain radium, and will set a standard that those desiring to deal in radium commercially will have to live up to. Dr. Charles F. Chandler was elected president; Dr. Robert Abbe, vice-president; Prof. William Hallock, secretary; Prof. George B. Bertram, assistant secretary, and Dr. Hugo Lieber, treasurer.—*Sc. Amer.*

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MR. W. J. GAGE, Toronto, offers five scholarships in medicine to the University of Toronto, to the value of \$100.00 each, and gold and silver medals. These are to be given to fourth and fifth year students most proficient in diagnosing and treating tuberculosis.



# Dominion Medical Monthly

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## Original Articles

### SOURCES OF INFECTION IN TUBERCULOSIS AND THEIR PREVENTION.\*

By GEORGE D. PORTER, M.B.,

Associate Secretary of Canadian Association for the Prevention of Tuberculosis.

In the modern widespread crusade against tuberculosis the public hear so much about the social side of it, so much about it being a disease due to poverty, intemperance and dirt, that they are very apt to consider only some of these predisposing factors of infection, and lose sight of the infection itself. If emphasis (important especially in large cities, as it is) is always laid upon this phase of the subject people will soon become as ashamed to own to a case of consumption in their family as they would be to confess to some disease of more questionable repute.

Although tuberculosis is far more frequent in the slums, some of which are veritable hotbeds of infection, and although there is a much higher death rate from this disease amongst the overworked, the underfed and the intemperate, yet it is as true to-day as it was when Charles Dickens said of it that consumption "is a disease which wealth never warded off or poverty could boast exemption from."

It has been demonstrated that it is due to the bacillus tuberculosis, which we know finds its way into the homes of the rich as well as those of the poor, of the cultured as well as those of the ignorant, and of the temperate as well as those of the drunkard, for of the 12,000 whom Canada loses annually from this disease thousands are from her best people in the industrial, agricultural, commercial and professional walks of life.

This paper then is merely for the purpose of briefly summariz-

\*Read at Canadian Medical Association, Winnipeg, August, 1906.



ing what are now believed to be the common and most frequent sources of infection, with the precautions to be taken against them; for it is the privilege of the medical profession to lead in the great work of educating the public regarding preventative measures, just as it is a physician's duty to use his best therapeutic skill in treating those individual cases which come under his care.

The tubercle bacillus does not travel by the placental route as frequently as we were formerly led to believe it did, and it seldom arrives by the cutaneous route, but its invasion is generally by way of the alimentary canal or the respiratory tract.

The sources may be *direct* from animals to man by the ingestion of diseased meat and infected milk.

It may be *direct* from man to man, when one affected with open pulmonary tuberculosis coughs, sneezes, laughs or talks loudly into the face of another, or if he kisses another on the lips.

It may be *indirect* from man to man by the ingestion of food contaminated by the soiled hands of tuberculous cooks or others preparing it; by the bacilli from dried sputum, soiled table napkins, cups, dishes and eating utensils handled or coughed upon by careless consumptives. Also from whistles, mouth organs, pencils and coins passed from the mouths of tuberculous children to those of others.

Infants have been infected by tuberculous nurses and mothers repeatedly tasting their food before giving it to them. Flies also carry the bacilli over food and drink.

Then we have indirect infection through repeated and long-continued inhalation of the infected air in rooms, shops, cars and public halls, where the bacilli from dried sputum, soiled dressings, handkerchiefs, bed linen or towels are disseminated. Books also are liable to carry infection.

Although we should use every effort to have untainted meat and a pure milk supply, yet, while awaiting these, the householder may avoid infection through diseased meat by properly cooking it, and she may protect her children, who are in danger of being infected from impure milk, by pasteurizing that. (A simple method of pasteurizing milk is by immersing the bottles containing it for one-half hour in a covered pail of water which has been brought to a boiling point and then allowed to cool for five minutes beforehand. Then the bottle should be immediately placed in cold water or on the ice, there to be left and covered until ready for use.)

*Direct* infection from man to man is that most commonly feared by the public, and yet it is probably the least frequent source of all, for tuberculosis is not as contagious a disease as is measles or whooping cough. According to the British official report at the

Congress held last year in Washington, "it is a slightly communicable malady" and "the element of infection has been somewhat overrated," according to the report of the Committee on the Prevention of Tuberculosis of State Charities' Aid Association of the State of New York. "Numerous investigations have shown that prolonged and repeated exposures are necessary to cause tuberculosis in a healthy person." This, however, should not delude us, for a large number of persons are unhealthy and a great many are being almost constantly exposed to the infection. About three or four feet probably marks the limit of the danger zone of droplet infection from a case of open tuberculosis. This may be avoided by having the patient cover his mouth when coughing. Consumptives should not kiss others (especially children) on the lips.

*Indirect* infection from man to man is probably the most frequent source of all, and yet the one which is most ignored. This may be largely avoided by burning all dressings, the disinfection by boiling (before being put in the general wash) of all handkerchiefs and linen used by consumptives. They should use separate dishes, knives, forks and spoons, which should be thoroughly sealed after use. They should sleep alone in a separate bedroom, free from carpets, curtains and upholstered furniture, and this room should be swept and dusted with moist brooms and cloths. They should use separate towels, and have their hands and face always kept scrupulously clean.

Books used by them should afterwards be disinfected or destroyed. All food should be covered or screened from flies.

Patients should use burnable sputum cups, cloths or paper napkins, which can be thrown in a paper bag and burned, or else covered receptacles, which are to be frequently disinfected. All sputum must be destroyed, and there should be disinfection of all dwellings after the death or removal of a consumptive.

Finally, all dwellings, schools, offices, shops and public buildings should be properly ventilated, for next to the proper care of infective cases nothing will prevent the spread of tuberculosis more than will abundance of light and fresh air in those places in which we live (and the same holds true for our cattle), for sunlight quickly destroys the bacilli and proper ventilation purifies the vitiated and oftentimes polluted inside atmosphere, while nothing yet known so greatly increases the resisting powers of the individual against the invasion of this insidious disease as does the continuous breathing of God's good fresh air.

## A SUCCESSFUL CASE OF CAESAREAN SECTION.

BY J. P. KENNEDY, M.D.

Surgeon to the Wingham General Hospital.

The patient, Mrs. C., aged 31 years, of Star City, Saskatchewan, consulted me at my office June 25th, 1909.

*Personal History.*—Has always been healthy, never having had any severe illness. When about 3 years of age had weak ankles, but no history of rachitis. Began to menstruate at 12 years of age, always painful. Six years ago she had an abdominal operation in Montreal, the nature of which I do not know. She says: "The uterus was straightened and cysts of ovaries punctured." Five years ago I did a dilation and curettage for dysmenorrhoea. Since then her periods have been without much pain. Shortly after this she moved to Saskatchewan.

*Marital History.*—Married 11 years ago. She became pregnant in May, 1908, but miscarried at 2½ months. Periods were then regular until February, 1909. She menstruated last February 11th, 1909. In the West she was informed that she was pregnant, but that it would be impossible for her to give birth to a living child at full term. When she consulted me on the 25th of June I found her pregnant, and a contracted pelvis with the following measurements:

Interspinous 21 cms.

Intercristal 25 cms.

Extr conjugate 17.5 cms.

Interischial 7 cms.

Pubo-sacral 10 cms.

Diagonal conjugate 9 cms.

I decided to keep her under observation and await the onset of labor, thinking, perhaps, that, if the child were small and presentation normal, she might be delivered *via naturales*.

She had no untoward symptoms during her pregnancy. I had expected her to be confined along about the 18th to 20th of November. Beginning labor was delayed, however, until the 26th of November. On the evening of that day I was telephoned for and saw her about 8 p.m. I found that she had been in labor for eight hours. A vaginal examination showed little, if any, dilatation of the cervix. At 11.30 p.m. there was slight dilatation, although pains were getting severe. At 5 a.m. next day, as pains were very severe, with little dilatation of the cervix, and as the head had not engaged in the pelvis, I decided to wait no longer, but to act,

while patient was in fair condition and strong. I accordingly had her removed at once to the Wingham General Hospital and prepared for Caesarean section.

*Operation.*—An incision 6 to 7 inches long was made in the median line—from above the umbilicus downwards. The abdominal wall, as is usual in such cases, I believe, was exceedingly thin. A specially long gauze roll was now packed in between the everted lips of the abdominal incision and the fundus uteri to protect the abdominal cavity. One of my assistants now pressed the abdominal wall firmly against the sides of the uterus. A vertical incision was now made into the uterus, from the fundus downwards, of about the same length as the abdominal incision. This was carried right through the uterine wall. As the placenta presented, instead of pushing it to one side, I went right through it, grasped a leg, and extracted the child. Dr. Hutchison now clamped the cord with haemostats, cut it, and I handed him the baby. He and Miss King, the patient's special nurse, took the child in charge, resuscitating it quite readily. Although the operation thus far had taken only four minutes, the hemorrhage had been very free. As soon as the child was delivered my assistant, Dr. Margaret C. Calder, grasped the broad ligaments and cervix, which controlled the hemorrhage temporarily, and at the same time brought the uterus outside the abdominal incision, a large sterile towel being placed behind the uterus, separating it from the towels covering the abdominal wall, which were now, of course, saturated with blood and liquor amnii. I now extracted the placenta, being careful to grasp it on the foetal surface. The uterus contracted at once. I inserted deep interrupted No. 3 chromicized catgut sutures. This practically controlled the hemorrhage. Half deep or superficial interrupted catgut sutures were inserted between these, and the peritoneal surfaces over the entire wound were brought together by a continuous suture analogous to the intestinal Lembert suture. The surface of the uterus and broad ligaments were sponged clean and the uterus replaced. The abdominal wound was closed by means of a continuous fine catgut suture for the peritoneum, interrupted silkworm gut sutures being employed to bring together the fascia, overlying structures and skin. The entire operation took 36 minutes. I am indebted to Dr. J. E. Tamblyn for giving the anesthetic, and my thanks are especially due to my assistant, Dr. Margaret C. Calder, and our excellent Hospital Superintendent, Miss J. E. Welsh, who so ably assisted me in the operation. The child, a boy, weighed 9½ lbs., with the following measurements:

Head—Ant. post. 11.5 cm.; transverse, 9.75 cm.; shoulders, 11 cm.



Hips, 10 cm.

Circumference of head, 37 cm.

Length of body, 49.5 cm.

The after history of the case was uneventful. Patient's temperature on the third day reached 101 degrees, but after the bowels were moved it remained normal, or nearly so. There was primary union of the abdominal incision. Patient nursed baby from the first. She was out of bed on the 18th day and left the hospital on the 25th day. Both baby and mother have continued well ever since. When a month old the baby weighed 12 lbs.

The inside of the uterus was not sponged, swabbed out or touched in any way. Nor was the abdominal cavity washed out. The large gauze roll packed around the uterus and between the everted lips of the abdominal incision, together with the pressure of these edges against the uterine by my assistants, prevented the entrance of either blood or liquor amnii into the abdominal cavity. A hysterectomy was not considered, nor did I attempt to sterilize the patient by ligating and sectioning the tubes, as I had no permission to do either. I do not believe that there would be any more risk in doing a second Caesarean section on this patient than there was in doing the first, provided it were done at the proper time and under suitable surroundings. I know of a woman, the wife of a millionaire in Boston, who has had a Caesarean section performed three times successfully.



## Medicine

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GRAHAM CHAMBERS, R. J. DWYER, GOLDWIN HOWLAND, GEO. W. ROSS, WM. D. YOUNG.

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**Gastric Ulcer.** C. F. HOOVER, *Cleveland Medical Journal*.

To treat a gastric ulcer rationally careful consideration must be given to the pathogenesis of the ulcer. Clinically it is possible to determine whether one is dealing with a peptic, perforating or an ulcer of some other origin. It is doubtful if trauma alone will account for any round ulcer of the stomach, and if it does occur long after the injury hyperchlorhydria accompanies. When not syphilitic, tuberculous or of the peptic variety, recovery is prompt: as soon as the bleeding ceases the patient can be given vegetable puree, scraped meat, eggs and milk. One has to remember when dyspepsia, pain and hemorrhage occur in elderly people with arterio-sclerosis that it cannot be assumed these are the result of an erosion. Hematemesis sometimes occurs in typhoid fever and pneumonia. Hoover divides these cases into three groups from his own clinical experience: first, syphilis; second, chronic peptic ulcer in patients who show no signs of congenital asthenia; and third, chronic peptic ulcer occurring in patients with congenital asthenia. In connection with the treatment of the former, he points out the tolerance of the stomach for only small doses of iodide of potash. In married women care should be exercised in the diagnosis, as they rarely give a history of syphilis, often coming by it innocently. Hemorrhage is rarely fatal in gastric ulcer. Gelatine in tablespoonful doses, 5% sterile solution, Hoover has used, but is doubtful of its service. Adrenalin is a rational drug to employ. It acts as a styptic and diminishes glandular secretion. He is doubtful of the efficacy of an ice bag to the epigastrium. Morphia hypodermically as a sedative is liable to produce watery greenish vomit. When bleeding is severe all solids and liquids should be withheld and water by enemata to allay thirst. For pain orthoform, in 7-grain doses, three or four times a day, but this is only serviceable when the irritating cause of the pain is accessible from the inner surface of stomach. For a protective coating 30 to 60 grains of bismuth subnitrate or carbonate; but on account of dark color to stools equal parts of prepared chalk and talcum, one-half to a full teaspoonful in three ounces of water before food, may be preferable.

G. E.

## Surgery

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WALTER McKEOWN, HERBERT A. BRUCE, W. J. O. MALLOCH,  
WALLACE A. SCOTT, GEORGE EWART WILSON.

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**Pus Tubes in the Male.** WILLIAM T. BELFIELD, M.D., Chicago.  
*Jour. Am. Med. Assn.*, Dec., 1909.

This is a short paper on pus infections of the male seminal duct. Since the ampulla and vesicle are closed by a sphincter of smooth muscle, liquids injected into the vas enter and distend the vesicle before they escape into the ejaculatory duct. If the ejaculatory duct be obstructed, by inflammatory swelling or other cause, and pus accumulates in the vesicle, the contractions of the vesicle will force the pus up the vas, and it will arrive at the epididymis. Thus pus infection of the vesicle, plus occlusion of the ejaculatory duct, converts the entire seminal duct into a closed abscess.

Since the vesicle is in close contact with the base of the bladder and ureter, inflammation of the vesicle often produces symptoms of chronic cystitis, such as irritable bladder. Adhesions between the base of the bladder and the seminal duct will often produce the symptoms of "prostatism without enlarged prostate."

Adhesions between the vesicle and ureter may obstruct the ureter and cause kidney and ureter disease.

Renal pain, "lumbago" or "nephralgia," is often produced by distended vesicle. For the treatment of the distended vesicle and seminal duct, vasostomy is advocated. The technic of the operation is described in the *Journal of the A. M. A.*, April 22nd, 1905.

W. A. S.

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**Surgical Treatment of Tuberculosis, Pleurisy, Lung Abscess and Empyema.** EMIL G. BECK, M.D., Chicago. *The Journal of the A. M. A.*, Dec. 18th, 1909.

The paper deals with the various methods of diagnosis, laying stress on the radiograph. It then passes on to surgical treatment. The pleuritic effusion is merely a symptom. The effusion is conducive to healing of the tuberculous process in the lung, and should not be removed unless to relieve some symptom, such as urgent dyspnea, high blood pressure or other disturbance of the circula-

tion requiring immediate relief. In such cases remove only enough to relieve the symptom.

Various methods are described to compress the lung, with a view of promoting healing in the tuberculous focus.

In cases of empyema the treatment employed has been to inject into the cavities a paste made of bismuth subnitrate 33%, and vaseline 67%. This treatment has been employed since 1907, and in all, 10 cases of empyema and 3 of lung abscess are reported here.

The causes effecting the healing process are discussed, and the technic in chest cases described.

W. A. S.

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**Seventy-Five Cases of Trifacial Neuralgia Treated by Deep Injections of Alcohol.** HUGH T. PATRICK, M.D., Chicago. *Journal of the A. M. A.*, Dec. 25th, 1909.

The technic is described in the *Journal of the A. M. A.*, Nov. 9th, '07. Here there is a report of the cases in which it has been used. The method is simple, and is free from serious danger; it requires no anesthetic, and the results are remarkably encouraging.

W. A. S.

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**The Transperitoneal Operation for the Removal of Bladder Neoplasms.** E. S. Judd, M.D., Rochester, Minn. *Journal of the A. M. A.*, Dec. 25th, 1909.

The technic of the operation is described in detail, and illustrated by five cuts. The method has been used 15 times, with one death. It is not advised nor deemed necessary to go through the peritoneum in removing tumors in the upper quadrants of the bladder, but since the greater number of tumors of the bladder begin in the region of the base, a much more radical operation can be done by this method, with little greater risk to the patient.

W. A. S.

## Obstetrics

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CHAS. J. C. O. HASTINGS, ARTHUR C. HENDRICK.

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**Traumatic Perforations of the Uterus from Within.** HENRIK (A. P.), Chicago. *Medical Standard*.

The chief predisposing causes to this accident are either hyperemia of the uterine tissues following abortion or labor; and atrophy, due to some wasting disease, such as tuberculosis, or after puerperal infections.

Malignant growths of the uterus also favor the accident, as also does abscess of the uterus, chiefly the ordinary pyogenic variety.

As regards treatment of such an accident, if one is quite sure that the uterus and the instrument are both aseptic, nothing need be done except to keep the patient quiet for two or three days, and carefully watched in regard to temperature, pulse, etc. If the injury has been done by a curette, nothing may happen.

However, if the interior of the uterus is septic, it seems better to perform laparotomy and explore the wound and adjoining viscera, and then suture the wound of the uterus.

ARTHUR C. HENDRICK.

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THE presence of shreds in the urine is a presumptive evidence more useful to the surgeon who seeks the etiology of a monarticular inflammation than is the denial by the patient that he has had gonorrhea.—*American Journal of Surgery*.

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IF there is reason to believe that one is dealing with a sub-acromial bursitis, the presence of great tenderness on pressure over the humerus in the axilla should not be interpreted to gainsay the diagnosis—although such tenderness has not been described.—*American Journal of Surgery*.

## Ophthalmology

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D. N. MACLENNAN, W. H. LOWRY.

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**Milton's Blindness.** By PROF. M. DUFOUR (*Ophthalmoscope*, September, 1909).

Milton, writing Philaros, a Greek diplomat, living in Paris, described his symptoms of failing vision. Whilst looking at a torch he would see a halo round the flame. To begin with, he noticed, on the left side of his left eye, a shadow, which hid from him all objects placed on that side. In shutting his right eye, the objects placed in front of the left eye seemed smaller. The shadow finished by obscuring completely the vision of the left eye. After this, during three years the sight of the right eye slowly and gradually grew dim. Before entirely losing his sight the motionless objects he looked at appeared to float about. Obstinate steam seemed to hang about his forehead, and as soon as he lay down, either on his right or left side, a brilliant light shone before his closed eyes. As by degrees his blindness increased, ever darker-growing colors troubled him; they finally settled in an ashen blackness. This cloud, in which he was enveloped day and night, was more like dawn than night: when he moved his eye it still received a faint light, as if through a crack. It took about eight years for him to become completely blind, from 1644 to 1652. In 1654 Milton, in a sonnet to his friend Cyriac Skinner, writes:

“Syriac, this three years day these eyes, though clear,  
To outward view, of blemish or of spot,  
Bereft of light their seeing have forgot.  
Nor to their idle orbs doth sight appear  
Of sun, or moon, or star throughout the year,  
Or man, or woman.”

From these statements Prof. Dufour deduces the following facts:

1. A dimness of the visual field, coming on first on the left side and then at the top; the sensation of steam before the eyes showing the well-known picture of the narrowing of the field from above.
2. The deformed character and mobility of the objects.
3. The subjective sensations of light, which persist even after the loss of sight.



He therefore concludes that these symptoms lead to the conclusion that Milton had progressive myopia and detachment of retina and that a causative factor was the intensity of his studies and of his work, for between the years 1639 and 1656 he wrote no less than fourteen books.

W. H. L.

**Syphilis of the External Eye.** By CASEY WOOD. *Interstate Medical Journal.*

Dr. Wood discusses briefly syphilis of the eye. In the treatment of interstitial keratitis he believes more in careful hygienic measures, such as fresh air, exercise, tonics, good food, etc., than in the use of specific treatment such as Hutchinson and other authorities advise. He also insists upon careful examination of the cornea for vascular outlines, by means of a lens, to diagnose the cause of corneal opacities which may have been due to interstitial keratitis.

W. H. L.

**Indications for Extirpation of the Lachrymal Sac.** WYLER. *Ophthalmology*, October, 1908.

Wyler, in discussing extirpation of the sac, sums up four chief indications:

1. Old dacryocystitis, with changes in the walls and more or less severe ectasia.
2. Flow of pus, which has been handled by other methods for a time without results, particularly in the laboring classes.
3. Complicated with corneal ulcers on the same side.
4. Preceding intra-ocular operation.

W. H. L.

**A Fatality following Discission of Cataract.** By PHILIP A. HARRY, Leeds. *Ophthalmoscope*, October.

Dr. Harry reports a case in a girl, aged 13 years. The patient had glycosuria, but it was thought that such a trifling operation as "needling" would not be contra-indicated, as the operation was to be done under local anesthesia. Unfortunately, however, in a day and a half after operation, the temperature dropped to 97, the pulse became 166 and respiration 20, accompanied by delirium. This was followed by coma and death within 48 hours.

W. H. L.

**Cataract after Electric Shock.** *Ophthalmoscope* for October.

A case is reported in which a young man, aged 28, developed a complete cataract in the left eye within eighteen months after he had sustained an electric shock of 2,500 volts. It is also of interest to note that he was deaf on the same side for four months.

W. H. L.

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**Traumatism and Interstitial Keratitis.**

Ronnaux reports two cases in which typical interstitial keratitis followed injury of the eye. In one case the traumatism was contusion, and in the other the injury was a foreign body. In both instances the patients showed signs of hereditary syphilis, and in both the recovery from the attack was very slow. W. H. L.

## Rhinology, Laryngology and Otology

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GEOFFREY BOYD, GILBERT ROYCE.

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**Tracheotomy for Foreign Bodies in the Air Passages: Based upon Fifty-Three Successful Cases.** By W. F. WESTMORELAND, Atlanta, Ga. *American Journal of Surgery.*

The author strongly condemns the practice of using the tracheotomy tube in cases of foreign body in the air passages, and says that it only obstructs and irritates. He advocates early operation when the field is free from infection and the chances of uninterrupted recovery greater. If the body is coughed out at the operation and there is no infection, he closes the opening at once, otherwise the wound is left open until all signs of infection disappear.

G. R.

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**Spoon Enucleation of the Tonsil.** By E. MORGAN MCWHINNIE, Seattle. *American Journal of Surgery.*

In this article the author describes a method of removing the tonsil in its capsule by means of a special instrument which he has devised. He states that he has found less hemorrhage attending total tonsil extirpation than in the ordinary amputation, and explains it as being due to the non-contractility of the fibrous capsule, so that the vessels are not closed off. On the other hand, the connective tissue external to the capsule does contract.

G. R.

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If one fails to quiet a frightened, crying child sufficiently to determine the presence of a tender area, necessary to diagnosis, the administration of chloroform to the point of *primary* anesthesia will make the examination easy, and, at this state of narcosis, pressure on a tender spot will be answered by reflex movements.—*American Journal of Surgery.*

## Gynecology

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F. W. MARLOW, W. B. HENDRY.

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**Dilatation of the Female Urethra.** By THOMAS BRAY SPENCE.  
*American Journal of Surgery.*

Spence, of Brooklyn, N.Y., reviews the various operative procedures that have been used for the relief of the incontinence of urine accompanying this condition, which, though it may be brought about by any form of stretching, is most frequently the result of traumatism incident to child-birth, and is often associated with cystocele and a relaxed vaginal outlet. His own method of operating, for which he claims considerable success, consists in a sagittal denudation or resection of that part of the anterior vaginal wall in apposition with the urethra, followed by deep and superficial suturing of the edges across the urethra in order to compress it. He also finds it necessary in many cases to repair the vaginal outlet.

F. W. M.

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**Tumor of the Large Intestine Simulating Disease of the Uterus or Uterine Appendages.** By VICTOR BONNEY. *The Lancet*, Aug. 21, 1909.

Dr. Victor Bonney gives some interesting reports of cases in which masses apparently arising in the pelvic organs were at operation found to be the result of an inflammatory or malignant condition involving some part of the large intestine, notably the caecum, the transverse colon and the sigmoid colon. He calls attention to the effect of gravity in lowering the situation of tumors of the movable parts of the colon and points out that the omentum usually becomes adherent and forms a considerable portion of the tumor, and it is undoubtedly true that diagnosis is difficult when such tumors are adherent to the pelvic organs, and especially when bowel symptoms are absent.

One can recall an occasional case of a similar kind, and notably a recent one in which one assisted Dr. J. F. W. Ross in resecting a considerable portion of the ilio-pelvic colon for the removal of a large inflammatory mass simulating a tubo-ovarian abscess, but in reality the result of diverticulitis. The patient was a woman recently confined and made a good recovery.

F. W. M.

**Cancer of the Cervix Uteri.** By JOHN A. MCGLINN. *New York Medical Journal*, July 31, 1909.

Dr. John A. McGlinn, of Philadelphia, has published a paper on the frequency of cancer of the cervix uteri. He quotes various statistics to show the alarming frequency of this condition, and also the support of his statement that cancer as a disease is showing a decided increase. The salient points of the paper are as follows:

1. Cancer of the uterus is the most common form of cancer in females—22.5 per cent. is the frequency given in England's statistics for 1900, and 27.68 per cent. is that of the United States for the same year.

2. Many observers contend that, taking cancer as it affects both men and women, the uterus is the most frequent site of the disease, the proportion given being somewhat less than one-third of all primary cancers, the stomach being next in order, with about one-fifth. Dr. McGlinn does not agree with this and reverses the order, placing stomach before uterus.

3. In England between the years 1847 and 1861 about 25,000 women died from cancer of the uterus.

4. Spencer has shown that in England and Wales during the years from 1901 to 1905, 19,645 women died of cancer of the uterus, that is an annual mortality of about 4,000 from this cause alone.

5. Cancer of the uterus causes the death of almost as many women as child-bearing, and perhaps more, and as the disease is by far the most common in cervices of multiparae, the great majority of women dying from such a cause are mothers of large families.

6. The proportion of deaths amongst women from cancer of the uterus is stated to be about one in thirty past the age of 35 and about one in ninety at all ages.

7. Registration of deaths has shown a gradual increase in the number of deaths from cancer of the uterus in the past decade.

8. Its greatest frequency is between the ages of forty-five and forty-nine, gradually increasing up to the former age, and decreasing after the latter.

9. Cancer of the body of the uterus develops as a rule later in life than cancer of the cervix and has a longer duration. The length of life in cancer of the cervix is usually given as two years, while in cancer of the body it is thirty-two months.

F. W. M.



**Surgical Treatment of Retrodisplacements of the Uterus.** By C. A. STEWART. *American Journal of Surgery.*

A brief but pointed and valuable paper on this subject by Dr. C. A. Stewart, of Duluth, Minnesota, appears in the *American Journal of Surgery*, August, 1909. Dr. Stewart wisely states that in uncomplicated cases in which there are no symptoms save perhaps those of a neurasthenic or neurotic type, the local condition does not call for treatment and is better to be ignored. When, however, there is backache, leucorrhea, vesical irritation, constipation, dysmenorrhea, menorrhagia, and perhaps sterility, the condition usually calls for operative treatment, as no palliative measures are of any particular good so far as permanency is concerned. His plan of procedure is to shorten the round ligaments. In cases where there are no adhesions to the uterus he uses the method of Alexander, whilst in other cases his operation is intra-abdominal and consists in a looping of the elongated ligaments, shortening the anterior peritoneum of the broad ligament, fixing the base of the outer limb of the loop to the uterine cornu so as to preserve its point and direction of traction and uniting the two loops in front of and to the front of the fundus of the uterus.

In cases of acute retrodisplacement the result of a fall or other injury, in which the round ligaments have not suffered from long-continued overstretching, the reposition of the uterus and the temporary use of a retentive pessary is as a rule all that is required to afford relief.

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**Extrauterine Pregnancy.** DR. BLAND, of Philadelphia. *American Journal of Surgery*, December, 1909.

Dr. Bland reviews briefly and concisely the subject of extrauterine pregnancy. The paper is full of interest, though nothing new of importance has been introduced.

Dr. Bland states that cessation of menstruation occurs in about one-half of the cases. This one considers to be rather a low estimate, and in practically all cases where one or more periods have not been missed, a very careful enquiry will elicit some slight departure from the normal menstruation, characteristic of the patient. In discussing the diagnosis before rupture one of the most important signs is omitted, namely, that the localized swelling in the tube may be felt apart from the ovary.

One cannot agree with the statement that the uterus is usually crowded to the opposite side by an unruptured gravid tube, since rupture usually occurs before the mass is large enough to affect the position of the uterus. Dr. Bland's statement, without qualifica-

tion, that "the diagnosis of ectopic gestation prior to rupture is often accidental, and frequently, when the diagnosis has been made, the operator finds the mass in question to be either an inflamed tube or a small cystic ovary," is open to criticism. No experienced abdominal surgeon should make such an error, for in case the ovary is cystic the tubal mass should be felt apart from it, and when one fails to recognize an inflamed tube it is usually because sufficient time and care are not expended in the history and examination of the case. To mistake an acute salpingitis for a tubal pregnancy is almost an unpardonable error, since the operation may and is likely to be followed by most serious consequences.

Deserved emphasis has been given to the necessity of careful manipulation in all cases where ectopic pregnancy is suspected or is probable. One can recall several cases where severe internal bleeding has followed the examination of such patients for diagnosis.

"That the mass is more or less pulsatile" one has rarely observed, and the statement is apt to cause practitioners to seek something which they will rarely find. The pulsation is from the enlarged amastomotic arterial circle.

As to vaginal section in such cases, Dr. Bland uses it as an aid to diagnosis "in all cases where haste is not demanded." Such a procedure is seldom necessary, and, like exploratory laparotomies in general, puts a ban upon careful diagnosis.

In discussing the operation, Dr. Bland states that as a preliminary procedure he incises the posterior vaginal wall and that in his recent cases he always establishes posterior vaginal drainage, though his operation is abdominal. Either one of these procedures is quite unnecessary when the abdominal operation is performed, and the vaginal section and change of posture would often consume too much valuable time in urgent cases. Drainage is quite unnecessary, as it is quite possible and desirable to remove the blood and clots by careful, copious irrigation and cleansing of the pelvic, and, if necessary, the abdominal cavity, by normal saline solution. An almost moribund patient will show signs of improvement as soon as such irrigation is begun, after the tube has been secured. Besides this, the removal of blood and clots by vaginal drainage would be difficult to accomplish. The statement that "the treatment of a ruptured ectopic gestation sac with hemorrhage into the folds of the broad ligaments is the same as the method described for intervention in intraperitoneal rupture" is hardly consistent with the value of the paper as a whole, for the occurrence of extra-peritoneal rupture is exceedingly rare, and if it does occur a harmless haematoma of

the broad ligament is the likely result, and, should operation be required, the case would present a very different aspect to one of intra-peritoneal rupture.

F. W. M.

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**Tumors of the Female Urethra.** DR. HIRST, *American Journal of Surgery*, December, 1909.

Dr. Hirst reports some rare cases of tumor of the female urethra, amongst which three were malignant, two carcinomata and one sarcoma.

His observations affirm the necessity for careful microscopical examination of all such tumors.

The ordinary urethral caruncle is, as a rule, easily recognized, but the occasional recurrence of one after removal may be misleading. This is also true of the infective granulomata that are prone to form at the urethral meatus.

F. W. M.

## Anesthetics

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SAMUEL JOHNSTON, M.A., M.D.

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**The Administration of Nitrous Oxide With Oxygen as an Anesthetic.** By CHARLES K. TETER, D.D.S., of Cleveland, O. *The Journal of American Medical Association*, June, 1909.

He has a record of thirteen thousand successful administrations, covering a period of nine years. "for practically every kind of an operation to its completion, under varying degrees of hazard, and varying in time from a few minutes to three hours."

The medical profession have been slow in adopting this combination of anesthetic for general surgery owing, mainly, to three factors: (1) An imperfect apparatus. (2) Lack of skill in its administration. (3) The expense.

The effects of the two gases on the organism are considered. The inhalation of oxygen is acknowledged by all to be beneficial, in that it influences the quality of the blood by increasing the number of red corpuscles, and clinically effects a marked improvement in the patient.

Nitrous oxide on entering the lungs is distributed throughout the alveoli and passes into the lymph. Its contact with the delicate nerve cells causes a temporary cessation of their functional integrity. The most highly organized centres are first affected, but gradually all succumb, until the respiratory and cardiac centres are paralyzed.

When the gases are warmed the patient passes into the anesthetic state more quickly and quietly, the narcosis is deeper, relaxation more complete, and cyanosis more entirely absent. Besides, the post operative bronchitis and pneumonia are less likely to occur.

The rapidity of elimination and return to consciousness depend on the freedom of the air tract from obstruction, as the elimination takes place principally through this tract.

On the withdrawal of the anesthetic the alveolar tension falls below the blood tension, and elimination commences.

If good respiration and circulation are present on the withdrawal of nitrous oxide and oxygen recovery takes place in a very few minutes.

The patient will show symptoms of recovery within sixty seconds

after a profound anesthesia, which may have lasted two hours, and will be conscious within three minutes. Of course with poor circulation and respiration recovery will be much slower.

Mr. Teter has used nitrous oxide with oxygen many times as the anesthetic throughout, with many different kinds of laparotomies, as well as Cesarean section, prostatectomy, radical operations, varicocele, amputations of breasts and extremities, and also a large number of thoracentesis.

He considers it an ideal anesthetic for the operation of thoracentesis, as a small amount of nitrous oxide will produce anesthesia and a large percentage of oxygen can be given to the starving lung.

In brain surgery, while nitrous oxide anesthesia with air produces distinct asphyxial symptoms, with oxygen these symptoms are quite overcome. One of the main objections to nitrous oxide with oxygen, as the anesthetic in major surgery, is the rigidity sometimes encountered.

Dr. Teter says about 10 per cent. of the patients cannot be relaxed.

Not caring to resort to other general anesthetics for this ten per cent., he has used numerous drugs before and during anesthesia.

The best results have been obtained when 1-4 to 1-8 gr. morphine sulphate, with 1-100 to 1-150 gr. atropine, were given hypodermically one-half hour before the operation.

He does not advise the use of morphine as a preliminary to nitrous oxide and oxygen in the hands of a novice, or one of little experience with this anesthetic agent, as respiration is more apt to cease, which is the tendency under nitrous oxide.

A perfect working apparatus is essential to properly administer nitrous oxide and oxygen. There should be four cylinders attached, two of each gas, so that when one cylinder is exhausted there should be no time lost in turning on the other one.

There should be means of warming the gas, so that it is warmed when it is inhaled.

All channels from the bag to the inhaler should be large and unobstructed.

There should also be an attachment so that varying percentages of ether can be administered in combination with nitrous oxide and oxygen, or in sequence.

The apparatus also should be of a portable nature, so that it can be easily carried from place to place.

The principal danger of nitrous oxide and oxygen anesthesia is that of asphyxiation.

The asphyxial element entering into the anesthesia is due to



the necessity of administering nitrous oxide almost in its pure state, in order to bring about that degree of saturation necessary to produce anesthesia, and is also influenced by the susceptibility of the patient, freedom of respiration, reflex effects of the operative manipulations, and the skill with which the nitrous oxide with oxygen is being administered.

There is another condition which very occasionally occurs, that is, tetanic cramps in the hands, arms, feet and legs. This condition has occurred mostly in short cases, and on recovery the patient experiences some pain in the parts affected. Blood pressure is slightly raised during nitrous oxide and oxygen anesthesia, but this is influenced greatly by the asphyxiation which accompanies it.

Among the chief advantages, that of freedom from nausea and vomiting is the most important. This freedom, however, will depend to a great extent on the evenness of the narcoses produced, preparation of the patient for the anesthetic, and purity of the gases. With these conditions fulfilled nausea and vomiting will be a rare occurrence.

In Dr. Teter's reply, regarding the discussion of this paper, he declared he did not advocate one anesthetic for every condition, nor does he think that an anesthetist is fully capable unless he can give any anesthetic and recognize when a change would be beneficial.

He advocates the taking up of anesthetics as a specialty and sticking to it. He criticizes the medical man for considering it beneath him to confine himself to anesthetics, stating that the result shows anesthetics are at the same place, one might say, that they were thirty years ago. The surgeons are all looking for the skilled anesthetist, and patients, when they understand it, as a rule, are willing to pay a skilled anesthetist his fee.

S. J.

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**Clinical Observations upon the Administration of Nitrous Oxide and Oxygen for Surgical Anesthesia.** By DR. C. B. PARKER, Cleveland. *Cleveland Medical Journal*.

Dr. C. B. Parker, Cleveland, read this paper before the Academy of Medicine of Cleveland, which was based upon observations made in 218 operations, performed under nitrous oxide gas with pure oxygen.

Nearly all were major operations on patients suffering from organic disease of heart, lungs, and kidneys; wasting and suppurative conditions; asthmas, diabetes, alcoholism; the very old and the very young; those who had developed alarming symptoms in previous attempts at anesthesia with ether and chloroform.

The Teter apparatus was used in all cases.

In the administration of this combination there is no stertorous breathing, extreme muscular rigidity, drooling, or lividity. The smallest quantity of oxygen, 2 or 3 per cent., overcomes these symptoms.

The administrator seeks to regulate the depth of the anesthetic by the amount of oxygen, while the flow of nitrous oxide is even and continuous.

There are three well-defined stages, as in other narcosis. In the third stage the breathing is deep and tranquil, pulse strong and rapid, and the patient's appearance good, like that of a tired person in a deep sleep.

There was also observed: Complete muscular relaxation, absence of conjunctival reflexes, deep, tranquil breathing, and pupils usually normal.

The following are mentioned as objections to this anesthetic:

(1) Cyanosis—the blood is dark, and rather startling to the surgeon, which he soon learns, however, to overlook.

(2) Muscular rigidity—more frequently seen in young and vigorous subjects. However, one cannot predict in what case it will appear. A preliminary hypodermic of morphine and atropine 30 minutes before operation has diminished these cases.

(3) It takes a specialist to administer the anesthetic successfully.

(4) The expense—the materials and apparatus are more expensive than those of any other general anesthetic.

Some of the advantages observed were:

(1) The greater safety in all diseases of the heart, kidneys, etc., all exhausting diseases, alcoholism, and anemia.

(2) It is the most agreeable anesthetic. There is no vomiting, or it is only slight, as the patient recovers consciousness. In no case did prolonged vomiting occur.

(3) The period during which the anesthetic is exhibited is shortened from 5 to 15 minutes. After the nitrous oxide is withdrawn, oxygen is continued, and the patient returns to consciousness within two or three minutes.

(4) It is a boon for those who have once taken ether and dread a repetition of their disagreeable sensations.

S. J.

**The Need for Legislation in Regard to Anesthetics, and the Lines on Which It Should Take Place.** FREDERICK W. HEWITT, M.V.O., M.A., M.D. (Cantab.) *The Lancet*.

In his introductory remarks he says: "The phenomenal advances which have taken place in surgery proper during the past thirty years have left the problem of safe anesthesia in the background, and it is only quite recently that a movement has been inaugurated to give this problem the prominence it deserves. Whatever means be chosen to prevent pain during a surgical operation, be it one of the greatest magnitude or one of so-called minor importance, the administrator of the anesthetic takes upon himself two responsibilities.

The first of these is towards the patient, whom he should provide with safety and comfort during what must always be an unpleasant ordeal; the second is towards the operator, whom we should provide with the best possible local conditions for the particular operation. Speaking generally, I would submit that the importance of the anesthetic as a factor in surgery is not sufficiently realized. Day after day the public mind is perturbed by announcements of deaths under anesthetics, and yet no united efforts are made to reduce the distressing mortality. I believe that had a proper share of attention been devoted to anesthetics, when modern surgery first took form, thousands of human lives would have been saved, and what is almost as important for the future progress and scope of surgery, the acute public alarm which now prevails with regard to anesthetics, and which obviously is limiting the beneficent work of our profession, would never have been established. . . . Experience has proved that the risks and discomforts of anesthetics may be reduced to trifling proportions by the recognition and adoption of proper principles of anesthetization, and that such principles may readily be acquired by the rank and file of our profession."

In England the law allows any person to administer an anesthetic for a surgical operation, provided his intentions are good and that he does his work to the best of his ability. The poorer classes necessarily suffer the most, as they employ quacks of all kinds to do this work, with the additional danger that their lives are threatened while returning to their homes, or subsequently, by alarming symptoms of cocaine poisoning, by profuse hemorrhage, or by septic poisoning. With regard to medical and dental practitioners, though the state of things is much superior, still much is left to be desired. This is more particularly the case in dental practice. Single-handed anesthetizing and operating is often used, and again often entrusted to a maid or a page-boy.

Dr. Hewitt thinks there are times when the double responsibility of anesthetizing and operating may be undertaken, but as it is the duty of the medical profession to preserve life, it is time that some steps were taken to improve the conditions under which anesthetics are administered.

The first step is the suppression of unqualified practice in anesthesia. He points out that, according to the report of the Unqualified Practice Prevention Committee of the General Medical Council, which appeared last year, there are only about 10 of 107 colonies and countries which do not protect the public against unqualified practice, and Great Britain is among this 10% minority.

In Austria special regulations have recently been issued by the Home Secretary with regard to single-handed anesthetizing and operating. The General Anesthetics Bill now under consideration of the Departmental Committee on Coroners' Law has as its main principles the restriction of general anesthesia to legally qualified medical practitioners, although it proposed to allow registered dentists to administer general anesthesia in their practice.

Dr. Hewitt deprecates this latter proposal because, he says, it encourages dentists to do single-handed anesthetizing and operating, since in most of the smaller villages and towns of Great Britain there is only one registered dentist, and usually two, three or four medical practitioners.

He also objects to the General Anesthetics Bill on the ground that it does not propose any legislative protection against local anesthetics. This omission was largely due to the difficulty experienced in drawing a hard and fast line between the comparatively harmless methods of producing localized analgesia and the more dangerous methods of securing the condition by the injection of cocaine and allied drugs. It has, however, been found possible to correct this, so that the General Anesthetics Bill has had a draft bill attached which places general anesthetics in the hands of the medical practitioner only, and local anesthetics are placed in the hands of registered medical or registered dental practitioners. S. J.

## Reviews

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*The Autobiography of a Neurasthene.* By MARGARET CLEAVES, M.D. The Gorham Press, Boston, Mass., 1910.

It is a little difficult to appreciate the object with which this book was written. The author states (p. 7): "This story is written with the definite purpose of removing, if possible, the sting and opprobrium which the essential neurasthene bears because of the long and continued pose of the neurasthene who does not exhaust neuronic energy, but poisons it by his way of living." In this purpose she singularly fails, as indeed is unavoidable, if only for the obvious reason that medical science does not recognise this distinction between two classes of "neurasthene." The life-story itself is related in a most inco-ordinate, jumbled and unintelligent fashion, and can hardly fulfil any purpose beyond affording some relief to the author's feelings. The illiteracy of the book is extreme, so that the meaning of many parts is quite incomprehensible. It is hard to believe that any physician should be so ill-educated as to be able to write a book in which every known canon of grammar, syntax and literary taste are flagrantly violated. As a representative example of the contents and style of the book one sentence may be quoted; it refers to the setting-out for a social function: "The lines of fatigue had disappeared from my face, and although as always pale, my eyes were bright, and for the benefit of the lay reader my directoire costume was stunningly elegant and very becoming." We trust the lay reader will be duly benefited and correspondingly grateful.

Now that such pathographic autobiographies are being published in increasing number, it is perhaps not out of place to make the following general observations on the subject. It is evident that the value of such publications must vary in accordance with the insight that the patient has gained in regard to the nature and origin of the morbid manifestations. Where, as in the instance before us, no evidence is given of any trace of even



rudimentary knowledge concerning the malady, the self-description has no scientific value and will do harm rather than good by being published. Then again, in thus baring themselves to the public gaze such autobiographers have to accept certain responsibilities, about which it is well that they should acquaint themselves beforehand. For example, it is probable that fewer neurasthenics would rush into print if they were aware that a considerable modern school lays great stress on the sexual basis of this disorder. Further, these self-portrayers lay themselves open to criticisms as to the correctness of the diagnosis put forward, and to discussions as to the nature and origin of the symptoms they describe. In the present case, for instance, there seems to the reviewer to be no evidence at all of the presence of neurasthenia, but, on the contrary, plain indications that the writer is suffering from hebephrenia.

It is to be hoped that the lay circulation of the volume will be small.

E. J.

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*The Diagnosis of Smallpox.* By T. F. Ricketts, M.D., B.Sc. (Lond.), M.R.C.P., D.P.H., Medical Superintendent of the Smallpox Hospitals and of the River Ambulance Service of the Metropolitan Asylums Board. Illustrated from photographs by J. B. Myles, M.B., B.C. (Cantab.), F.R.C.S. (Eng.), D.P.H., Senior Assistant Medical Officer at the Smallpox Hospitals of the Metropolitan Hospitals Board. With 12 colored plates, 110 black-and-white plates, and 14 charts. Cassell & Co., Limited: London, Paris, New York, Toronto and Melbourne.

In the general practice of medicine there is no subject which is more important to the practitioner than the diagnosis of smallpox. A mistake in its diagnosis may cause much suffering to the patient and worry to the attending physician. Any literature, therefore, which will aid the profession in acquiring a better knowledge of smallpox should be commended.

The writers of the volume before us, who have had much experience in the diagnosis of the disease, believe that illustrations

by plates should form an essential character of the work. With these one can show not only the characters of these lesions, but also their locality and distribution, which are most important data in differential diagnosis. The plates, black-and-white as well as colored, are excellent. One takes special interest in the color-plates because they are taken from negatives obtained by color-photography.

The work, taken as a whole, is praiseworthy, and we feel that if one must study the diagnosis of smallpox from books, this work should prove of great value.

G. C.

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*American Practice of Surgery.* Vol. III. Bryant and Buck. New York: Wm. Wood & Co.

Vol. III. of this system contains a discussion of poisoned wounds and injuries and diseases of bones and joints. The articles are for the most part well written, and much valuable information imparted.

While we feel that the present classification of chronic non-tubercular and non-traumatic inflammation of joints is unsatisfactory, we are not of the opinion that the writer of this section has made the matter any clearer by his method of presentation.

G. E. W.

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*Diseases of the Stomach.* A Manual for Practitioners and Students. By S. H. Habershon, M.A., M.D., F.R.C.P. With eight colored and eleven black-and-white plates. Cassell & Co., Limited: London, New York, Toronto and Melbourne, 1909.

This book is intended as a concise description of diseases of the stomach especially from the clinical point of view.

In the first two chapters the anatomy and physiology of the stomach are considered. This part of the book is particularly well

done, the plates illustrating the anatomy and anatomical relations of the stomach being especially good.

The third and fourth chapters are devoted to nutrition and diet in health and disease, and the fifth and sixth to examination of the stomach and gastric contents. We see little which should be criticised in these sections.

The remaining portion of the work is taken up in the consideration of the symptoms of gastric disease, the causes, pathology, symptomatology and treatment of the various gastric disorders. The author includes dyspepsia in the list of gastric affections, which we think is a somewhat obsolete and unscientific method of classification. The symptoms which form the 'symptom-complex' of the dyspepsia of the author would be better considered as manifestations of other morbid conditions, organic or functional. Again, the author, in describing the symptomatology of dyspepsia, makes use of terms vague in meaning, such as biliousness, atonic dyspepsia, acute dyspepsia, etc., which are not, as a rule, found in modern books on diseases of the stomach. G. C.

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*Practical Points in the Use of X-Ray and High-Frequency Currents.* By Aspinwall Judd, M.D., formerly Radiologist, Post-Graduate Medical School and Hospital, Adj. Professor of Surgery of the Post-Graduate Medical School and Hospital, New York, etc. New York: Rebman Company.

The author's intention in writing this book was to present the essentials of the construction and working of X-ray and high-frequency apparatus, and their application in the treatment of disease in a concise and clear manner. The work is intended for the general practitioner who has not the time to read and master an extensive work on the subjects. The value of this book to a beginner in radiology and electro-therapy is also enhanced by the elimination of discussions on scientific questions, which are not readily followed without considerable knowledge of the science of electricity. G. C.

*Examination of the Urine.* A manual for students and practitioners, by G. A. DESAUTOS SAXE, M.D., Instructor in Genito-Urinary Surgery, New York Post-Graduate Medical School. Second edition, revised 1909. Philadelphia and London: W. B. Saunders Company. Canadian Agents, J. F. Hartz Co., Toronto.

This little book, over 400 pages, is well written and brought well up to date in the important methods of urine examination. It is written with special reference to the clinical importance of certain urinary conditions. A number of new subjects are treated, e.g., the pentases, Cammidge's reaction, methods of preserving and staining urinary sediments, etc.; also on diabetes and the toxemias of pregnancy. Altogether, this work of Dr. Saxe is to be commended very favorably to the practitioner or student who desires a ready and convenient text-book, concise and accurate. The book is nicely got up and well printed and illustrated. A valuable little book.

A. C. H.

# Dominion Medical Monthly

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## COMMENT FROM MONTH TO MONTH.

**Gynecology in Relation to Neurasthenia.** One was very much interested in the valuable contribution on neurasthenia by a Toronto physician, recently published in a local journal, to find that the doctor entertains the belief that many needless operations are performed on neurasthenic patients, and that he infers that he believes the gynecologists are the greatest offenders in this respect. Such a belief may well be called into question. Surely the doctor did not mean gynecologists, but otherwise busy men occasionally practising gynecology, if, perchance, he has any just grounds for believing as he does.

One is quite prepared to admit that, generally speaking, refinement in diagnosis of female pelvic disorders is below a desirable status, but one cannot believe that the fixers of harmless movable kidneys or displaced uteri, or the curetters of the uteri of neurasthenic patients, or removers of their tender left ovaries, are found amongst the ranks of those whose constant and serious attention is devoted to gynecology. In the course of ordinary practice it is



difficult to attain a true appreciation of the significance of various disorders without special study and experience, and if this be true in ophthalmology or otology and its allied sciences, it is equally true of gynecology, and for obvious reasons the material for study and experience in this department is not so easily obtainable as in others. Gynecological "tinkering" abounds, and is accounted for largely by the failure to make complete and satisfactory examinations in the face of difficulties which are too numerous and obvious to mention, and the lack of appreciation of the significance of the findings. It is in this way that most injustice is done to neurasthenic patients.

The dictum, "If there are no real indications for treatment, do nothing," is one that should most certainly be observed in the practice of gynecology. But there are always two sides to a story, and fewer mistakes would be made and patients would be spared injustice time and again if physicians would exercise more care in excluding contributory disorders before diagnosing neurasthenia.

F. W. M.

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**Father Time** comes in for some consideration generally at the end of every year. At the beginning of this year, however, he has commenced early to cut a wide swath amongst the medical men of Canada.

In 1909 over 2,000 deaths amongst medical men took place in the United States and Canada. It is estimated there are in the two countries 135,000 physicians, which would give a rate of over 16 per 1,000. The average age at death was 59 years, ranging from 22 years to 100 years.

Early in the present year the deaths of Drs. Uzziel Ogden, James H. Richardson and G. S. Cleland, Toronto, and Dr. Arthur Browne, Montreal, were announced. Three of these in their day occupied prominent positions as teachers of medicine and practitioners, whilst the fourth pursued the even tenor of his medical life and died while yet young, strong and solid in the esteem of his confreres. Drs. Ogden and Richardson had for many years been identified with the teaching of medicine in Toronto, and, conse-

quently, came to be well known and well beloved by thousands of medical men, who had at least gained some of their professional equipment from them. Whilst one was quiet and unassuming in his deportment, the other was forceful and masterful. They finished their life work almost side by side, and leave behind their noble examples of professional life as it is in medicine.

The late Dr. A. A. Browne was one of the best known and respected physicians of Montreal. For several years he had been on the medical staff of McGill, but retired to devote himself to a large practice. A year ago his health failed and he died on the 26th of January, aged 63 years.

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**Echinococcus Disease in Canada**, or more particularly in British Columbia, is a subject which has engaged the attention of Dr. R. E. McKechnie, Vancouver, B.C. The results of his enquiries and personal observations are summed up in a paper published in *North-west Medicine*, which paper was read before the Section on Surgery at the first meeting of the Associations of the Pacific Northwest, held in Seattle last July.

Dr. McKechnie made an earnest endeavor to get statistics to cover the Dominion of Canada. Dr. J. N. E. Brown, Superintendent of the Toronto General Hospital, wrote: "During the past years (since we kept regular records) we have not had any cases of echinococcus. Two cases in fifteen years was the sum total in the Royal Victoria Hospital, Montreal—one a Russian, the other an Austrian recently arrived. Osler states the greatest frequency of the occurrence of the disease is in Iceland, and specially mentions the Icelandic settlement in Manitoba. Dr. McKechnie, however, was unable to secure any data from Winnipeg, which would have no doubt added largely to the value of the investigation. He states a former Winnipeg practitioner, Dr. Alex. Ferguson, Chicago, has published the largest personal list of cases; but we are unable to say how many occurred in his practice while in Winnipeg.

In British Columbia, Dr. McKechnie says no cases had been located outside Victoria, Vancouver and New Westminster. One case was reported by Dr. Kenny of the latter city. Victoria produced

four cases, two observed by Dr. O. M. Jones and two by Dr. Ernest Hall. Vancouver furnished seven cases, two occurring in the practice of Dr. W. B. McKechnie, three in that of Dr. A. S. Monro, one observed by Dr. B. D. Gillies, and one by the author of the paper.

Thus British Columbia has produced twelve cases in all, six males and six females. Five were from the British Isles, four from Iceland, one from Finland, one from Ontario, and the other unstated.

Dr. McKechnie stated in the discussion that since writing the paper he had received word from Winnipeg that 160 cases had occurred there, practically all in the Winnipeg General Hospital.

Ten years ago the late Dr. George A. Peters, Toronto, reported to the Toronto Clinical Society a case of hydatid cyst of the pancreas, occurring in a young man, Spanish by birth, a resident of the Argentine Republic, who came under the care of Dr. A. McKinnon, of Guelph, Ont., and upon which case Dr. Peters operated. Dr. Peters stated at that time a search of the literature on the subject revealed no other reported case of hydatid cyst of the pancreas.

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**Hydatids, with Analysis of Cases Treated at the Winnipeg General Hospital.** This was the title of a paper contributed to the meeting of the Canadian Medical Association in Winnipeg last August by Dr. B. J. Brandson, attending surgeon out-patient department, Winnipeg General Hospital. The paper dealt with the mode of infection, development, geographical distribution and incidence in Western Canada, general symptomatology and diagnosis, treatment and analysis of cases.

When Dr. Brandson examined the records of the Winnipeg General Hospital he found there had been one hundred cases in that institution. There was an additional case found on autopsy, not suspected during life.

Of the 100 cases, 96 were born in Iceland, two came from England, one from Russia, and one from Ontario, this last case born of Icelandic parents shortly after their arrival in Ontario from Ice-

land and which was the only case of a native-born Canadian treated in the hospital from this disease.

Although mostly found in females in Iceland, of these 100 cases 52 were males and 48 females. The youngest patient was five years and the oldest 67 years. Eighty suffered from hydatids of the liver alone.

Of the total number, seventy were cured, eight for various reasons untreated, four discharged unimproved or incurable, and eighteen died.

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**The Conservation of the Health and Life of the Canadian People** is to form part of the great and comprehensive plan of conservation of the natural resources of Canada, as lucidly, vividly and extensively outlined in the masterly address of the Chairman of the Special Commission, Hon. Clifford Sifton, delivered a short time ago in Ottawa.

Over this particular section—the section on public health—of the National Conservation Commission, the successful financier and practical business man, Mr. E. B. Osler, M.P., has been called to preside. It may be expected that this section, therefore, of the Commission, will be productive of some good, solid and lasting results.

When, however, a statesman of the capacity of Mr. Sifton speaks out frankly to the Government of the day, and tells that Government that it concerns itself more with the health of animals than human beings, one must surely see signs of an awakening in the public and lay mind.

Try as they might for years, the medical profession, as represented through provincial and national associations, could not hope to accomplish much without bringing to their aid powerful interests, as will be represented in a Commission of this scope and character.

To those who believe and know that not much advance will be made in Canada in public health matters until such times as a properly constituted Department of Health is established, under federal authority, this section of public health, of the Conservation Commission, will be welcomed as a forerunner to that end.

That Mr. Osler and his committee will proceed to evolve a plan that will look towards a department of health for the Dominion, as well as similar departments in all the provincial governments, will, we are satisfied, be the earnest wish of all those who take cognizance of the conservation of human health and life.

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**The Ontario Medical Council** is at the present time meeting with some rather keen and pronounced criticism at the hands of the medical press of the Province. This would seem to denote that the actions of the Council in different respects are producing some irritation, more or less vexation, and not a little unrest in the profession. The essence of the complaints lies in the fact that there is apparent irregularity in the matter of university representation. There is so much adverse criticism to both the composition and actions of the Council that were it to obtain in a somewhat similar body of men, reforms would be instituted without delay.

That a wide and sweeping amendment to the Ontario Medical Act is demanded, there can now be no reasonable doubt in any quarter. It may have fitted the conditions in the past, but the representation at the present time is entirely unsatisfactory—and this not alone in the academic and university representation.

The homeopathic practitioners of the Province are a body of fair-minded men; and we doubt very much if an amendment to the Act be contemplated, if they would demand the glaringly unfair representation of five for thirty-odd, against a regular representation of seventeen for nearly or over three thousand.

*The Canada Lancet* says: "There are neither too many nor too few of these classes"—the seventeen territorial and the five homeopathic representatives. We take issue with this statement, as if a rearrangement of the representation is contemplated, no such minority would either demand or expect such elaborately generous treatment.

Individually, the Medical Council is composed of as fine professional men as could well be got together. The abuses existing are not all of their making. That they may have lagged in reforming those abuses may be true; but the profession in the Province never before were so uneasy over matters pertaining to the Council. The desire for reform is now rampant, and the present Council might well take the matter up energetically, so that speedily that confidence which it ought to engender would be restored in its entirety.



## News Items

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DR. J. J. GUERIN has been elected Mayor of Montreal.

DR. TYERMAN, Prince Albert, Sask., is spending the winter in Toronto.

THE Manitoba Medical Association will meet on the 26th and 27th of May.

DR. HARVEY SMITH, Winnipeg, was in Toronto recently on his way to Ottawa.

DR. BRYDONE-JACK has been appointed medical officer to the Vancouver schools.

DR. L. M. CURREN has been appointed a commissioner of the St. John, N.B., Hospital.

PRINCE ALBERT, Sask., is to have a new Catholic hospital of 100 beds, at a cost of \$100,000.

DR. WILLIAM TELFER, a well-known practitioner of Montreal, died recently at Burgoyne, Que., aged 46 years.

PLANS have been approved for a new wing to the Isolation Hospital, Toronto. The estimated cost of same is \$102,000.

TORONTO had 7,839 births, 3,905 marriages and 5,188 deaths in 1909. The births were 106 less, and the deaths 559 more than in 1908.

DR. E. P. LACHAPELLE, Chairman of the Board of Health of the Province of Quebec, has been elected a member of the new Board of Control of Montreal.

TORONTO had no deaths from smallpox in 1909; 77 from scarlet fever; 191 from diphtheria; 70 from measles; 30 from whooping-cough; 79 from typhoid fever, and 293 from tuberculosis.

THE directors of the Royal Jubilee Hospital, Victoria, B.C., are seeking provincial government aid towards constructing a tubercular ward.

PHYSICIANS in the Canadian Northwest are now permitted to use freight trains going or coming from emergency calls on the C.P.R., without a special order.

DR. HELEN MACMURCHY, Toronto, has been appointed by the Toronto Board of Education to examine the mentally defective pupils in the public schools of the city.

THE Ontario Medical Council is asking from the Legislature power to immediately deal with members of the C.P.S.O., guilty of disgraceful conduct in a professional respect. They are also asking that a Pasteur Institute be established in the Province.

THE Canadian Medical Association meets in Toronto, June 1st, 2nd, 3rd and 4th, 1910. Dr. John B. Murphy, Chicago, will deliver the address in surgery. There is to be an excursion to Niagara Falls, and another to the Ontario Agricultural College at Guelph.

THE Verdun Protestant Hospital for the Insane, Quebec, admitted 197 patients in 1909. The total number in the institution was 783, the largest in any year yet recorded. Dr. Burgess, in his report, says a society is urgently needed to watch over patients discharged from the hospital.

THE Toronto General Hospital treated 5,104 patients in its last official year. Of 296 deaths, 118 post-mortems were held. There were 302 births in the maternity department. Registered students attended 94 externe maternity cases successfully. The cost per adult patient per day was \$1.3702.

THE International American Congress of Medicine and Hygiene of 1910, in commemoration of the first centenary of the May revolution of 1810, under the patronage of His Excellency the President of the Argentine Republic, will be held May 25th in Buenos Aires, Argentine Republic. In order to facilitate the contribution of papers and exhibits from the United States, there has been appointed by the President of the Congress, Dr. Eliseo Cantón, and the Minister of the Argentine Republic at Washington, a committee of propaganda, of which Dr. Charles H. Frazier, Philadelphia, Pa., is Chairman, and Dr. Alfred Reginald Allen, Philadelphia, Pa., is

Secretary. The Congress has been divided into nine sections, each section being represented in the United States by its chairman in this Committee of Propaganda as follows: Section 1—Biological and Fundamental Matters, Dr. W. H. Howell, Chairman, Baltimore, Md. Section 2—Medicine and Its Clinics, Dr. George Dock, Chairman, New Orleans, La. Section 3—Surgery and Its Clinics, Dr. John M. T. Finney, Chairman, Baltimore, Md. Section 4—Public Hygiene, Dr. Alexander C. Abbott, Chairman, Philadelphia, Pa. Section 5—Pharmacy and Chemistry, Dr. David L. Edsall, Chairman, Philadelphia, Pa. Section 6—Sanitary Technology, Dr. W. P. Mason, Chairman, Troy, N.Y. Section 7—Veterinary Police, Dr. Samuel H. Gilliland, Chairman, Marietta, Pa. Section 8—Dental Pathology, Dr. George V. I. Brown, Chairman, Milwaukee, Wis. Section 9—Exhibition of Hygiene, Dr. Alexander C. Abbott, Chairman, Philadelphia, Pa. It will not be necessary for one contributing a paper or exhibit to the Congress to be present in person. Arrangements will be made to have contributions suitably presented in the absence of the author. The official languages of the Congress will be Spanish and English. Members of the following professions are eligible to present papers or exhibits: Medicine, Pharmacy, Chemistry, Dentistry, Veterinary Medicine, Engineering and Architecture. Papers may be sent direct to the chairman of the particular section for which they are intended, or to Dr. Alfred Reginald Allen, Secretary, 111 South 21st Street, Philadelphia, Pa.

DR. H. S. BAKETEL, for many years advertising manager for the Denver Chemical Co. (antiphlogistine), New York, has severed his connection with that firm, and has assumed the Vice-Presidency and General Managership of the Thermo-Chemicals Company, New York, which company is marketing in the United States and Canada "Hyperthermine," which promises to be of undoubted therapeutic value.

## Correspondence.

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### REFORMING POLICE COURT INEBRIATES.

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*The Editor of THE DOMINION MEDICAL JOURNAL:*

*Dear Sir,*—The Society for the Reformation of Inebriates aims at two things:

1st. For some years, in a quiet way, it has been trying to reclaim the unfortunates charged in the Police Court with drunkenness. Daily at the City Hall the Society has in attendance a physician and two other officers, who go among these prisoners and try to reach those ready to be aided by the Society.

The drink habit is accompanied by a diseased nervous system, and what many of these people need is medical treatment. The physician in attendance gives this to those found willing to accept it, and in some cases the Society bears the expense of keeping in hospital, for a time, inebriates who must receive such treatment if they are to have any chance in life. The results from such methods have been most encouraging.

2nd. The second great aim of the Society is to reform completely the present mode of dealing with inebriates committed to jail. Toronto needs badly what a good many cities both in Great Britain and the United States now have—a farm outside the city, to which inebriates charged with drunkenness can be sent to be kept at wholesome labor, if possible out of doors, for a time long enough—a good many months in some cases, no doubt—to permit their whole system to get into healthy condition. To send such persons repeatedly for short terms to jail is to give them no real chance. They should be treated as diseased persons and kept long enough to become healthy in mind and body.

It is obvious that the Society has an extensive work on hand. It has further aims, among others the securing of a hospital where inebriety may be treated under favorable conditions: existing hos-

pitals make but slight provision for such a class of patients. But the two aims outlined above are the chief ones before the Society for the moment.

To carry on its work, it requires funds, and your readers are urged to aid efforts that, if pressed forward, will bring new hope and self-respect to many lives. Any sums will be welcomed. If only one dollar can be sent, it will be gladly received. It is hoped that some donors, able to do so, will aid this hard-pressed work generously.

Contributions may be sent to the Treasurer, Hon. S. C. Biggs, Confederation Life Building; the Secretary, Dr. A. M. Rosebrugh, Relief Office, City Hall, or to my address, 467 Jarvis St.

Yours truly,

GEORGE M. WRONG,  
*President.*

Toronto, January 10, 1910.



## Publishers' Department

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**ADRENALIN IN A NEW PACKAGE.**—In addition to the ounce vials in which it has hitherto been supplied, Adrenalin Chloride Solution is now being marketed in hermetically sealed glass containers of 1 cubic centimeter capacity. "Adrenalin Ampoule" is the name used to designate the new package, and the solution is of the strength of 1 to 10,000 (one part Adrenalin Chloride to 10,000 parts physiologic salt solution). In their announcement of the Ampoule, Parke, Davis & Co. have this to say:

"Adrenalin Chloride Solution has become a necessity in medical and surgical practice. The most powerful of astringents and hemostatics, it lends itself to many practical uses, and at little risk of injury in reasonably careful hands. Since the time of its introduction it has been marketed in ounce vials, and of the strength of 1:1000. Experience has shown, however, that a weaker solution is much more frequently required than the "full strength," and, while it is generally an easy matter to dilute with water or normal saline solution, in certain emergencies an already fully diluted preparation is to be preferred. While the danger of deterioration from occasionally opening a vial containing a solution of Adrenalin Chloride is not great, still, in consideration of the fact that a dose is needed now and then for hypodermatic injection, it is believed that the small, hermetically sealed package will be welcome because of its greater convenience and security."

As will be apparent from the foregoing, the Adrenalin Ampoule is intended for hypodermatic use. It should be of great value in such emergencies as shock, collapse, hemorrhage, asthma, etc., or where prompt heart-stimulation is desired.

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**VALUABLE CONCLUSIONS.**—The case of G. H. is reported by J. S. Norwell, M.B., C.M., B.Sc., of Edinburgh, Scotland, as follows: "Suffered from headaches which proceeded from errors in diet. I arranged a table of diet for him which proved beneficial. I prescribed antikamnia tablets, and with the very best results. His headaches were kept under until his changed dietary had time to effect more permanent relief. This year he went to Bisley. In case he should be troubled there with his *hete noir*, I gave him some anti-

kammia tablets as a stand-by. On his return he told me he had no headache, but that he had used all the tablets. Headaches, it seems, are no uncommon accompaniments of camp life. He has dispensed the antikammia tablets to some of his suffering companions, and they (the tablets) 'hit the bull's eye every time.' Who knows but that they had something to do with the phenomenal scoring at the last meeting!"

One could multiply similar cases, but this may suffice to illustrate the effects of antikammia tablets in the treatment of headaches, and to warrant the following conclusions I have come to with regard to their use: (a) They are a specific for almost any kind of headache. (b) They act with startling rapidity. (c) The dosage is small. (d) The unpleasant after-effects so commonly attendant on the use of many of the other analgesics are entirely absent. (e) They can therefore be safely put into the hands of patients for use without personal supervision. Another point worth noting is that they can be very easily taken, being practically tasteless.

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It is contrary to my custom to write testimonials, but the results I have obtained from the use of Resinol Ointment and Soap are so extraordinarily satisfactory that I think it is my duty to say a good word for these products. With the Ointment, I have been able to cure a case of eczema of over twenty years' standing, which had baffled all previous treatment. At present I have a case of an aggravated ulcer on the leg, and it is being healed up rapidly with Resinol. It is now over two years since I have first started to use Resinol Ointment. I am greatly pleased to say that it has never failed to do excellent work. I take this opportunity to thank you for the samples sent me from time to time, and also for bringing Resinol to my attention.—Dr. Eduardo Toledo y Toledo, Madrid, Spain.

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THE FORGIVING DRUGGIST.—About a thousand years ago, approximately, I was apprenticed as a printer's devil to learn the trade, in common with three other boys about my own age. There came to the village a long-legged individual of about nineteen, from one of the interior counties; fish-eyed, no expression, and without the suggestion of a smile—couldn't have smiled for a salary. We took him for a fool, and thought we would try and scare him to death.

We went to the village druggist and borrowed a skeleton. The skeleton didn't belong to the druggist, but he had imported it for the village doctor, because the doctor thought he would send away for it, having some delicacy about using—well, the price of the skeleton at that time was fifty dollars. I don't know how high they go now, but probably much higher, on account of the tariff.

We borrowed this skeleton about 9 o'clock at night, and we got this man—Nicodemus Dodge was his name—we got him down town out of the way, and then we put the skeleton into his bed. He lived in a little one-storeyed log cabin in the middle of a vacant lot. We left him to get home by himself. We enjoyed the result in the light of anticipation; but by-and-by we began to drop into silence; the possible consequences began to prey upon us. Suppose that it frightens him into madness, overturns his reason, and sends him screeching through the streets! We shall spend sleepless nights the rest of our days. Everybody was afraid.

By-and-by it was forced to the lips of one of us that we had better go at once and see what was happening. Loaded down with crime, we approached that hut and peeped through the window. That long-legged critter was sitting on his bed, with a hunk of gingerbread in his hand, and between the bites he played a tune on a jew's harp. There he sat, perfectly happy, and all around him on the bed were toys and jimmeracks and striped candy. The darned cuss has gone and sold the skeleton for five dollars. The druggist's fifty-dollar skeleton had gone.

We went in tears to that druggist and explained the matter. We couldn't have raised fifty dollars in two hundred and fifty years. We were getting board and clothing for the first year, clothing and board for the second year, and both of them for the third year. But the druggist forgave us on the spot, but he said he would like us to let him have our skeletons when we were done with them. There couldn't be anything fairer than that; we spouted our skeletons and went away comfortable. But from that time the druggist's prosperity ceased. That was one of the most unfortunate speculations he ever went into.

After some years one of the boys went and got drowned; that was one skeleton gone, and I tell you the druggist felt pretty bad about it. A few years after that another of the boys went up in a balloon. He was to get five dollars an hour for it. When he gets back there will be owing him a billion dollars. The druggist's property was decreasing right along. After a few more years the third boy tried an experiment to see if a dynamite charge would go off. It went, all right. They found some of him—perhaps a

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vest pocket full; still it was enough to show that some more of that estate was gone. The druggist was getting along in years, and he commenced to correspond with me. I have been the best correspondent he has. He is the sweetest-natured man I ever saw; always mild and polite, and never wants to hurry me at all. I get a letter from him every now and then, and he never refers to my form as a skeleton; he says:

“Well, how is it getting along—is it in good repair?”

I got a nice message from him recently—said he was getting old and the property was depreciating in value; if I could let him have a part of it now he would give time on the balance. Think of the graceful way in which he does everything—the generosity of it all. You cannot find a finer character than that. It is the gracious characteristic of all druggists.—Mark Twain.

---

I find that the Resinol Ointment is especially beneficial and efficacious in eruptive and irritating skin diseases. Your Soap is also very good for shaving, as it keeps the skin soft and in healthy condition.—Dr. Miguel Abelardo Egas, Quito, Ecuador.

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THE FEES OF OUR ANCESTORS.—Under the above title, D'Arcy Power has recently contributed to *Janus* an interesting little paper on the emoluments of physicians at various periods. With the art of a practised writer, he at once arrests his reader's attention by reminding him of two physicians whose custom it was never to receive a fee at all—namely, the “unmercenary” saints, Cosmas and Damian. At the opposite extreme comes the fee which Mr. Power has omitted to recall—namely, that received by Democedes, of Crotona, who as a prisoner was in the service of Darius Hystaspes at Susa. Darius had dislocated his foot at the ankle-joint, and Democedes was called in after the failure of an Egyptian surgeon. His treatment was successful, and he was thereupon presented with two golden fetters, a delicate allusion to his position. Having delighted Darius by asking him “whether he meant to double his punishment,” that monarch told him to go through the harem as the man who had saved the king's life. The ladies each gave him a golden vessel piled up with *staters*, so many of which fell on the floor that the slave who conducted him made a handsome fortune by picking them up. He was afterwards called





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in to treat Atossa, the Queen, for a mammary ulcer, which he succeeded in curing. Such patients, however, as the Great King and his consort do not fall to every man's lot, though in quite modern times the high feudatory princes of India have paid comparable fees.

In the Middle Ages men were more mercenary, and Mr. Power gives an amusing quotation from John of Arderne (*circa*, 1370) as to the methods of bargaining with a patient. Arderne's highest fee for the cure of fistula in ano was £40 down, a suit of robes, and 100s. per annum during the life of the patient. Patients in the Middle Ages were no more ready to pay their fees than now, and Gilles de Corbeil, a celebrated twelfth century physician, points out in language which most surely would strike an answering chord in the heart of the present Chancellor of the Exchequer, that the rich man must pay in accordance with his wealth, though he adds, as a saving clause, "if his mind is as wide as his purse," then—

"Aggravet hic medicina manum: sumptus onerosos  
Exigat: hic positos debet transcendere fines."

In another place he remarks that it is as well for the physician to demand his fee before the patient is well—

"Tutius esse reor, quod certe novimus omnes,  
Dum dolet accipere, vel munere posse carere."

Mr. Power concludes his paper with an account of eighteenth century fees. Physicians like Radcliffe and Mead charged a guinea; country apothecaries charged much less and made their money chiefly by the sale of medicine. Mixtures, as Mr. Power reminds us, were sent out as draughts in one-ounce phials, with a cork which sometimes had one pill in a box stuck on to it. Draught and pill cost 1s. 9d. As many of our readers will remember, the directions were written on a slip of paper attached to the neck of the bottle, and such a draught, in the half-light of a sick-room, bore a ludicrous resemblance to the human inhabitants of a Noah's Ark, as manufactured in about 1860, up to which time the custom of separate draughts endured. Readers of Swift will remember the story he tells of Stella: "A Quaker apothecary sent her a vial, corked; it had a broad brim and a label of paper about its neck. 'What is that,' said she, 'my apothecary's son?'"—*Lancet*.

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ANIMAL EXPERIMENTATION AND TUBERCULOSIS.—E. L. Trudeau, Saranac Lake, N.Y. (*Journal A. M. A.*, January 1), shows how all our knowledge of everything bearing on the control and prevention

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**Alcoholism**

About ten years ago strong influence, by each of two opposing interests, was brought to bear to induce the Ontario Government to adopt medical treatment for inebriates in the penal institutions of the province by the use of secret or proprietary remedies. The matter was referred to the Prisoners' Aid Association of Canada, and Dr. Rosebrugh was commissioned to visit in Canada and the United States, interview specialists, and report upon the most scientific method of treatment of inebriety. Upon his return he reported strongly against the employment of secret remedies, and the Government declined to grant the request referred to. Since then Dr. Rosebrugh has made the treatment of inebriates a special study, and his practice is limited to this specialty.

Correspondence welcomed.

ADDRESS—

**A. M. ROSEBRUGH, M.D.**  
 Secretary of Ontario Society for the Reformation  
 of Inebriates  
 76 Prince Arthur Av., Toronto, Ont.

of tuberculosis is due to experiments on the lower animals. All the advances previously made, before the infectious nature of the disease had been proved, were limited to pathologic anatomy. He gives a history of the early progress in the direction of experimental studies, showing how, through the early work of Klenke, Willemin, Klebs, and others, the infectious nature of tuberculosis was demonstrated, but it was not until the epoch-making work of Koch, in 1882, on the etiology of the disease, that it was generally accepted by the profession and the public. His later work, in 1890, demonstrating the value of tuberculin in diagnosis, which has been of inestimable utility in the control of the disease and also in its treatment, is all due to experiments on animals. Far-reaching as the new knowledge of tuberculosis is in the saving of life, it is not entirely easy to estimate it, as so many factors are involved. The death rate has fallen notably during the last forty years, in some countries only slightly faster since the discovery of the tubercle bacillus; but in others the diminution has been most remarkable since 1882. In New York City there has been a reduction of 40 per cent. in the deaths from consumption; in Prussia, fully 50 per cent. The results, however, depend largely on the thoroughness and efficiency with which the preventive measures are carried out. The experience of the past has justified the hope that ultimate control of the disease will finally be attained by knowledge acquired by the same means, and will probably depend not only on more thorough and comprehensive application of the facts already learned, which are the basis of all preventive measures so far, but also on the discovery of some specific method of immunization or treatment, which can only be brought about by continued and painstaking studies on animals. It has taught us already much as to the different types of the tubercle bacillus and their virulence, and the many ways in which this micro-organism invades the human system and destroys it. In his experience, animal experimentation has directly aided his practice and shown him that the production of artificial immunity is not altogether so unattainable as was formerly supposed. Those who, through ignorance or false sentiment, are working to have legal prohibition of this most valuable method of study for the prevention of disease, have little realization of or care for the amount of human suffering that exists, and are apparently willing that it should continue indefinitely so long as it does not affect themselves, or they do not come in contact with it.



# Dominion Medical Monthly

And Ontario Medical Journal

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No. 3.

## Original Articles

### REMARKS ON VINCENT'S ANGINA, WITH REPORTS OF CASES.

BY GRAHAM CHAMBERS, M.B., AND HERBERT WILLSON, M.B.,  
TORONTO.

The term "Vincent's Angina" is applied to an infectious inflammation of the throat, resulting in superficial or deep necrosis. The affection is apt to be mistaken for other morbid conditions of the throat, especially diphtheria and syphilitic ulceration.

The materies morbi of Vincent's Angina appears to be a fusiform bacillus or a spirillum. The former germ, usually called bacillus fusiformis, is probably the causative agent. In 1896 Vincent called attention to the possible relationship of these germs to ulcerative anginas. In the following year Bernheim reported thirty cases of angina and stomatitis (ulcerative), in which both the bacillus fusiformis and spirillum were found. In 1898 Vincent presented additional records; and since that date many cases have been reported by various physicians.

The clinical manifestations of the disease are fairly definite. In some cases there is very little constitutional disturbance; in others the onset is characterized by feverishness, loss of appetite, furred tongue, sore throat and a general feeling of malaise. The course of the temperature is variable. In the superficial variety the elevation varies from 100° to 103°F., falling to normal in a few days. In the deep variety the fever may continue for one or two weeks.

The clinical signs are somewhat variable. The lymph nodes in the upper part of the neck are usually swollen. The breath of the patient is generally foul. The infection may begin in the mouth or throat. The affection of the mouth is an ulcerative stomatitis, usually commencing on the gums (ulcerative gingivitis). The prim-



any seat of the angina is, as a rule, the tonsil, and in many cases the disease does not extend beyond this organ. However, there is a tendency for it to extend to the anterior and posterior pillars, soft palate and uvula. This character is probably more marked than in the case of diphtheria. The inflammatory process, be it superficial or deep, results in necrosis. In the superficial variety the disease-area is covered with a greyish-white pellicle, thin, friable, and removed with difficulty, leaving a bleeding surface. The necrotic covering is never thick and fibrinous, which characters are frequently of value in distinguishing the disease from diphtheria. Another character which we have observed in our cases was the presence of an areola of a dull red hue, suggesting a considerable degree of stasis of blood.

The deep variety of Vincent's Angina is characterized by ulcers of various sizes and depths, usually resulting from necrotic processes. The bases of the ulcers are generally covered with necrotic tissue. The edges may be vertical like that so frequently seen in syphilitic ulcers. The common seat of the ulcer is the tonsil, but it is not uncommon to see the ulcerative process extend widely, involving pillars, soft palate, and, occasionally, the epiglottis and glottis may be involved. It is probable that the morbid affection, known as cancerum oris or noma, should be placed in the same category as Vincent's Angina. This is supported by the fact that the bacillus fusiformis is, as a rule, present in noma.

The most distinctive sign of the disease is the finding of Vincent's organisms in the necrotic tissue. If one makes a spread from some of the necrotic tissue and stains with methylene blue, aqueous gentian violet or other suitable stain, spirilla and fusiform bacilli can invariably be made out.

The bacillus fusiformis may be curved or straight, single or in chains of two or three, 6 to 12 microns in length. It is thicker at the centre than at the ends. The spirillum or spirochæta of Vincent varies considerably in length and number of spirals. It is invariably larger than the spirochæta pallida.

The course of Vincent's Angina depends upon the severity of the morbid process as well as upon treatment. A fatal result may occur as a result of extensive sloughing or of a complication such as aspiration, or lobular pneumonia. With deep ulceration healing, in case of recovery, may be delayed for weeks.

The differential diagnosis of Vincent's Angina requires care, but is not difficult. It must be distinguished, especially, from diphtheria and syphilitic ulceration of the throat. The superficial variety of Vincent's Angina may resemble diphtheria. In diphtheria, however, the false membrane is frequently thick and tough,

whereas in Vincent's Angina the necrotic covering is thin and friable. Again, bacteriological examination gives definite data. The presence of Vincent's organisms or Klebs-Loeffler bacillus will determine which morbid affection is present. I may add that the organisms of Vincent's Angina and diphtheria are never found together. The presence of the bacillus fusiformis precludes the presence of the diphtheria bacillus.

The ulcers of Vincent's Angina may resemble a syphilitic ulceration of the throat. In both the ulcers may have a punched-out appearance. However, the history of the case and the consideration of other signs are usually sufficient to differentiate the affections. It should be remembered in this connection that syphilis and Vincent's Angina may occur together.

*Associated Affections.*—In some cases of Vincent's Angina, ulcerative stomatitis is an associated condition. In these the necrotic process usually occurs on the gums or adjacent parts of the cheeks. The ulcerative gingivitis is variable in degree. In many cases it results in ulceration of the border of the gums, producing a condition similar in appearance to pyorrhea alveolaris. I may mention that, according to the opinion of some, the bacillus fusiformis is the common cause of pyorrhea alveolaris.

In my experience ulcerative gingivitis is a common affection in children's homes. This may afford an explanation of why there is an occasional outbreak in these homes of cancrum oris, an affection which is probably due to the fusiform bacillus of Vincent.

The treatment of Vincent's Angina is usually successful. The local treatment consists in applying some antiseptic, such as hydrogen peroxide, or a solution of iodine. The hygienic treatment is important, because the disease is very apt to occur in persons who are in poor health and live in badly ventilated houses. It should also be remembered that the disease is contagious.

*Case I.*—E. G., aged 25, female, domestic, was admitted to Toronto General Hospital, February, 1909, for treatment of "sore throat." Patient's health had been good. About a fortnight before coming to the hospital patient began to suffer from pains in back, bones and head and chilly sensations. Nausea was present after meals, and the appetite was very poor. She thought she was getting la grippe. Two or three days later the throat became sore. It was dry and smarting and swallowing was painful. A week after the beginning of her illness she was admitted to the hospital. Then there was considerable swelling of the sub-parotid lymph nodes. Breath of patient was foul. The left tonsil was covered with a greyish pellicle, somewhat ragged in appearance, which could be removed with little bleeding. Culture on blood serum was negative

for Klebs-Loeffler bacillus. Stained smears showed the spirilla and fusiform bacilli of Vincent.

During the next few days the disease extended to anterior pillar and velum palati. The border of the disease area was dull red. Then improvement began, and in about a week later the throat was clear.

*Case II.*—T. M., aged 26. December 12th, 1909, patient consulted Dr. Graham Chambers on account of sore throat, from which he suffered for five or six days. In 1906 patient contracted syphilis, for which he took treatment for over two years. An examination of throat revealed the presence of a small ulcer on the left tonsil. The edges were somewhat vertical. The base, which was about a half-inch in diameter, was covered with necrotic tissue. Smears from the necrotic tissue showed the presence of Vincent's organisms. Local applications of hydrogen peroxide and boric acid resulted in a cure in about ten days.

*Case III.*—Clinical notes by Dr. Herbert Willson.

On December 9th, about 4 p.m., I was called to see R. G., a boy of ten years. He had been ill for about three days. He complained of extreme pain on swallowing and severe headache. He lay in bed crying and was plainly in great distress.

Examination of the throat revealed two greyish-white patches on the left tonsil. These patches were close together, almost circular, of about one-quarter inch diameter, and had a punched-out appearance. In applying a swab, the greyish exudate was easily removed and a bleeding surface was left. The tongue was heavily coated and the breath offensive. The sub-maxillary glands were swollen. The temperature was  $101\frac{1}{2}^{\circ}$  and the pulse rate 120. The bacteriological test revealed the characteristic bacilli and spirilla of Vincent's Angina. It was decided not to give antitoxin. Peroxide of hydrogen was used to cleanse the throat. Isolation was carried out as a precaution.

On December 10th, at 10 a.m., the two patches were present, as when first observed, but there had been no spreading. The condition of the patient was about the same as on the preceding day, although he seemed less inclined to complain. His temperature was slightly lower.

On December 11th, in the afternoon, the patient was feeling considerably better. The greyish exudate had disappeared, and there remained soft, ulcerated-looking areas, easily bleeding. The pulse and temperature were normal. The glands were still swollen, and there was still discomfort on swallowing.

On December 12th the patient was much better, and in the afternoon he wanted to get up. Pulse and temperature remained

normal. There was much less swelling in the glands. The raw surfaces could still be distinguished on the tonsil.

On December 13th the boy was a great deal better. On the 15th his condition was so greatly improved that his mother allowed him to get up (although against the doctor's advice). After this, so far as I could judge, his condition was normal, and he had no further trouble.

There were two other children in the family, both younger boys. One of these had a similar attack, the symptoms first appearing on December 11th, and the trouble lasting about one week. This boy, however, was of an abnormally nervous disposition, and became hysterical when an attempt was made to examine the throat, so that a swab was not obtained. In his case the swelling of the glands on one side was extreme. There were the same complaints of headache and pain on swallowing. No antitoxin was used. At the end of eight days the boy was quite well again.

Both boys remained at home during their illness. The house and the locality were very unhygienic.

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## THE RELATION TO THE EYE OF DISEASES OF THE NOSE, THROAT AND EAR, THE MOUTH AND PHARYNX.

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BY J. PRICE-BROWN, M.D., TORONTO.

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Of all the different portions of the upper air tract, connected as they are with each other by canals, fissures and openings, each one being lined by a continuation of the one mucous membrane, the division which is the most remote in its direct bearing upon the eye is the one that falls to my lot to discuss.

Although a relation of diseases of the pharynx and mouth with the eye undoubtedly exists, yet this branch of the subject has received very little attention from either general or special writers. You may search through long tomes upon "Diseases of the Nose and Throat" one after another until a dozen or two have passed through your hands, but the result will be almost nil. Now and then a short paragraph will meet your eye, more frequently a sentence or even a clause, and the bearing, even then, may not be very direct.

In looking over leading works upon ophthalmology, however, a somewhat more satisfactory result will be obtained. While the



nasal chambers, the accessory sinuses and the ear, have the credit of being the chief divisions of the upper air tract that affect the eye, whether in health or disease, yet the pharynx and the mouth are admitted to have a positive though a minor bearing upon the eye, and allusions are sometimes made to the effect which diseases of the one has upon the other.

Ball tells us that even the teeth have an influence in controlling the normal condition of the eye, caries and necrosis of the teeth having been known to be responsible for optic thrombosis.

According to Fuchs, retrobulbar cellulitis has been due to dental periostitis, and it has also occurred as a sequel to the extraction of diseased teeth.

The same writer tells us that orbital phlegmon may develop from the extension backwards of either pharyngitis or suppurative parotitis.

Posey and Spiller have much to say upon the effects of bulbar and pseudo-bulbar diseases in their mutual relationship between the throat and eye, producing both dyspnea, an affection of the throat, and abnormal lacrymation, an affection of the eye, at the same time.

True bulbar disease may ultimate in degeneration of the hypoglossal nerve and atrophy of the tongue, accompanied by drooling at the mouth. The muscle fibres become thin, while the connective tissue increases in volume. The tip of the tongue is said to suffer most.

Percy and Wright call attention to the fact that diseases of the eye often owe their origin to diseases of the pharynx, and that the effectual removal of the latter is essential to the successful treatment of the ocular disease.

Knies, too, dwells upon this phase of the subject, and gives a number of instances. One example is the curious reflex influence which electro-cantery operations upon the nose and naso-pharynx sometimes produce. This consists of a temporary concentric narrowing of the field of vision. He considers it to be a species of traumatic hysteria.

Other instances not traumatic are given. Tubercular infiltration of the left lung, accompanied by dilation of the left pupil. Pneumonia of the right lung associated with herpes of the right eye. The dyspnea of emphysema, sometimes accompanied by stasis of the retinal vessels and at others by conjunctival hemorrhages.

Schmidt affirms that he has several times seen arterial pulsation of the fundus of the eye in cases of pulmonary tuberculosis. One can scarcely understand the relationship of the one to the other, particularly in the last case. That the condition of profound



anemia, so often attendant upon tuberculosis, should permit such a result is at least surprising.

Ballenger gives the history of a case of cavernous sinus thrombosis of otitic origin in which both the orbit and the throat were involved, the case ending fatally.

That in paralysis of the throat following diphtheria the orbit is sometimes involved is well known. I have personally seen two cases in which this has occurred. In each convergent strabismus developed synchronously with the pharyngeal paresis, but in neither was the general system affected.

In one of the cases, one of the pupils was dilated, but not the other. Recovery took place in a few weeks.

In dealing with this question, the large subject of hay fever is worthy of more consideration than is usually accorded to it, for there is no disease in our whole vocabulary in which the orbit, the nasal chambers, the accessory sinuses, the pharynx and the middle ear are so uniformly and so simultaneously affected as in hay fever. It further demonstrates by this very association the intimate relationship which exists between these various organs, for in many respects, though differing widely in function, fundamentally in office they are one.

Of other diseases that have a general influence extending by continuity from the pharynx through the nasal chambers to the eyes, and one that is widely disseminated throughout the civilized world is influenza.

The same in a minor degree might be said of scarlet fever and measles and other infectious diseases, the manifestations upon the mucous membrane commencing in the throat and extending to the outlying regions, including the orbit, in regular order.

But back of all these there is often a condition of a basic character that might easily be eliminated—the hypertrophy of the normal tissues of Waldeyer's ring.

In children the lingual tonsil is rarely enlarged, while the faucial and pharyngeal tonsils frequently are. By their presence they obstruct both ventilation and drainage, and thus favor the culture of germ life, something that is always inimical to the well-being of the individual.

In some ways there is a tendency in the present age to the practice of unnecessary surgery in our own line, as well as others, but I do not think this is the case in reference to the removal of adenoids. Whenever they are present in sufficient degree to obstruct nasal breathing or compress the orifice of the eustachian tube, they should be removed. And when the faucial tonsils are large enough to induce throat symptoms or mouth breathing, which

is so frequently the case in children, they should also be reduced in size. In the latter matter, I know, I differ with some of my confreres, who advocate, even in children, complete tonsillectomy, while I agree with Delaven, McBride, Simpson and other leading men, who believe that free tonsillotomy is much better for the child.

However that may be, by rendering nasal respiration perfectly free through nose-pharyngeal operations, we remove the primary cause of many of the diseases of the upper air tract, some of which might ultimately affect the orbit. Take, for instance, Ballenger's fatal case, already quoted, of cavernous sinuses, thrombosis of otitic origin, in which the eye and throat were both involved. What caused the original otitic trouble? Does not every aurist know that the majority of severe ear cases have their origin in obstructive lesions in the nose-pharynx? The probability is that if the adenoids had been removed in early life, something over which Ballenger had no control, the otitic disease would not have occurred, the cavernous sinus would have remained normal, and the child's life would have been saved. This reasoning, of course, is only hypothetical, still in the majority of instances it would be sound. And we cannot too strongly urge the advisability of keeping the pharynx, as well as the mouth, in as nearly a normal condition as possible, if we wish to avoid many of the diseases that children so frequently suffer from.

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### BLUNDERS FROM TEMPORIZING.\*

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BY C. N. COBBETT, M.D. (EDIN.), EDMONTON, ALTA.

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*Mr. President and Gentlemen:*

When I was a student, more years ago than I like to count, it was impressed upon me that there are three special emergencies in practice with which every medical man, whether his tastes are surgical or not, must be prepared to deal promptly and efficiently.

1. Obstruction of the air passages.
2. A distended bladder.
3. Strangulated hernia.

Now in modern practice there are other emergencies perhaps not so imminent, but equally vital, in which the life of the patient depends upon quickness of decision and prompt action, and it must be within the knowledge of every impartial observer and a matter of regret to every man proud of his profession that numerous valuable

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\*Read at Canadian Medical Association, Winnipeg, August, 1909.

lives are yearly sacrificed through failure to appreciate the necessity for prompt action.

There is a too common tendency to "wait and watch" whilst alleviating symptoms, temporizing until frequently the opportunity of saving life has passed and an operation, if performed at all, rendered futile by the practically moribund condition of the patient. By way of illustration, permit me to mention a few instances which have come to my notice, and in doing so I will ask you to bear in mind that every case alluded to has occurred in the practice of physicians regarded as competent, men who have had some experience, who are in earnest, who each and all enjoy the confidence of a considerable section of the public, and who, I believe, conscientiously endeavor to do their best for their patients.

1. Dr. "A" is called on Friday to see a child 8 years old suffering from pain in the belly, vomiting and constipation. He orders certain local applications and anodynes. On Saturday he is "afraid the child is developing appendicitis." On Sunday, the child being obviously worse, he desires the opinion of a colleague. The consultation takes place in the evening and an operation is decided upon for Monday morning. The abdomen being opened, a condition of acute general suppurative peritonitis is found, and so advanced that it is deemed impossible to do anything, so the wound is closed and death shortly follows.

2. Dr. "B" is called to a man, aet. 30, taken suddenly ill late on Thursday night. He diagnoses appendicitis, but temporizes. On Friday he decides that he will have to operate, but prefers to wait a little longer "in order to give time for adhesions to form and the abscess to be walled off."

On Saturday, urged by a colleague, he operates and finds the belly full of pus, with no attempt at walling off, and his patient dies on Tuesday from general peritonitis; sacrificed not to ignorance, but to hesitation and lack of decision.

3. Dr. "C" is called late at night to see a married woman 35 years old, taken suddenly ill with acute abdominal pain and faintness. He finds her collapsed, pale and almost pulseless. He consults a colleague and they agree that most probably they have to deal with a ruptured ectopic gestation sac and that they will operate next day. The operation takes place on a dying woman whose pelvis and abdomen are literally full of blood.

Surely it must be apparent that the delay of twelve hours or so was the factor which deprived this patient of whatever chance of life she had.

4. A woman between 20 and 30 years of age consults a doctor about a swelling on one side of her neck, which she finds interferes

with her breathing. He finds a mass of enlarged glands pressing on the trachea. He advises some local treatment and desires to be immediately informed should the condition grow worse. Two days later the breathing becomes alarmingly embarrassed. In consultation with a colleague the patient is found cyanosed and partially asphyxiated. Even at that critical moment it does not apparently occur to either physician that the one thing to do is to open the trachea there and then somehow, anyhow, with a pocket knife if need be. Instead, the ambulance is sent for, the patient taken into the operating room and death occurs from asphyxia before anything can be done.

5. A healthy man of middle age is seized with a well-marked and severe attack of renal colic. The attack lasts for several hours and is followed by complete anuria.

Is it not fair to suppose that it would soon become sufficiently obvious that the man had "anuria" from obstruction and that it was imperative to expose the kidney and, whether a stone were found or not, to at any rate attempt to re-establish function by providing drainage?

Apparently these deductions were not made, for the patient was allowed to lie for eight days with total suppression of urine and, of course, died.

At the autopsy it was found that there was only one kidney with a stone lodged in its ureter.

These briefly sketched histories of actual cases should be sufficient to illustrate my point that temporizing in practice is only too common and that it has disastrous results.

To what are we to attribute these sins of omission?

Is it that a sound clinician must be born and not made? Is it just "slackness" in method, a kind of mental laziness? Or is it pure carelessness and negligence?

In my opinion it is in none of these things that we find an explanation. I think it is simply an illustration of a defective educational system. You cram your students' heads with a lot of hard facts; you lecture them *ad nauseam*; you insist upon their being well up in their text-books, and you give them a certain amount of clinical instruction and practical work. Throw in, in addition, a certain amount of experience. Some men never learn from experience, and to no one is experience of value unless he is capable of appreciating its teachings. With all this is your product a good clinical observer?

I think the deficiency can be explained in this way. In the rush and hurry of modern life the one idea of parents, student and



teachers also is to turn out a qualified practitioner as soon as may be.

The student is in most instances only seeking a portal to what he considers a respectable and fairly well remunerated livelihood. He does not, and is not made to, realize his responsibilities, and he cannot fail to be impressed with the financial success of many practitioners who add to a minimum of knowledge a smooth manner and plenty of push. It does not seem to be sufficiently realized that to enable a man to think intelligently it is necessary to train his mind just as he must exercise his muscles to play upon the piano. And to enable a man to think intelligently and reason logically a much more thorough preliminary training is called for than the average student of medicine obtains.

The actual professional curriculum is also faulty.

The acquisition of hard facts is essential of course—that goes without saying. But how little time and trouble comparatively is devoted to clinical instruction. In practice, an ounce of intelligent clinical observation is worth many pounds of book knowledge or laboratory tests.

There are far too many lectures—too many subjects—and not nearly enough practical work. Far too little teaching in clinical inductive methods.

To insure the public the full benefit of medical education and to enable the medical man to look back upon his work with satisfaction, it is necessary to acquire sound and logical mental methods. The physician must be able to observe the facts, to draw his inference therefrom, and, arriving at his conclusion, be prepared to act promptly and energetically; avoiding that temporizing and hesitation which in many other walks of life would be followed by swift annihilation—financial or otherwise—and in his own cannot fail to react injuriously on himself as well as prove disastrous to his confiding patient.

Higher standard of preliminary training. Much more practical training, to the exclusion, if need be, of some of the less important subjects and the inculcation of lofty ideals of practice—keeping in the background its commercial aspects—are to my mind great desiderata in the profession of the present day.



## ACCOUCHEMENT FORCE AND CRANIOTOMY ARE NO LONGER JUSTIFIABLE IN VIEW OF THE SAFETY OF CAESAREAN SECTION.

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By A. LAPHORN SMITH, M.D., M.R.C.S. (Eng.);

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The position of the Caesarean, like many others of the most important operations in surgery, has undergone several rapid changes during the last few years. It began as a curiosity on dead women only, and with the sole object of occasionally saving the child. So that the death rate in its early days was 100 per cent. for the mothers and about 50 per cent. of the children.

The first change for the better was when some heroic operator proposed to perform the operation on women who were dying, but not yet dead, after an impossible labor of several days' duration. A few, perhaps 10 per cent., of these recovered, to the surprise of the operator's contemporaries, who probably looked upon him as mendacious for claiming that there were any maternal recoveries at all.

These rare successes, however, emboldened others to intervene earlier and earlier, with an ever-increasing success, until in 1874 Cazeaux and Tarnier estimated the death rate of the mothers at between 50 and 75 per cent. Then in 1892 we see by Coe's article in the Gynecological Society's Transactions of that year that there were sixty-eight in the United States during the previous decade, with a maternal mortality of less than 40 per cent. Near the end of his paper he prophesied that the next ten years would see a notable improvement in our statistics. Surely enough, on opening the 1903 volume of Transactions we see by Green's paper that the mortality at the Boston Lying-in Hospital was only one in nine cases, or eleven per cent., even in women who had already had a Caesarean section before. He does not give the mortality for the fifty done there, once on each women, but it was presumably still less.

As with ovariectomy, and as with hysterectomy for fibroid, so in Caesarean section, a lowering of the death rate induced surgeons to

operate earlier; and this in turn led to a still smaller mortality. The present death rate of about two or three per cent. is chiefly due to making the operation one of election instead of one of emergency. Up to ten years ago even the most favorable cases for operation were women with deformed pelvis, who had been in furious labor for many hours, and on whom repeated and forcible efforts had been made to effect delivery. The operation may have been as skilfully performed then as we can do it now, although perhaps not so quickly; so that we can safely say that the majority, if not all, of the deaths were due to the injuries received by the women from the futile attempts of nature or art to deliver them. The next great decrease in the mortality occurred only two or three years ago, when a few of the most courageous abdominal surgeons inaugurated a new era in the history of Caesarean section by not only improving the condition of the class of women who had formerly been operated on, but by adding two entirely new and more favorable classes. That is to say that, instead of waiting until the life of both mother and child have been jeopardized by the violent use of forceps, and then doing Caesarean section, they have gradually persuaded the family physician to do less and less damage: until now it quite frequently happens that we have an uninjured woman to operate on. When every family doctor becomes skilful enough to recognize that a given head cannot pass through a given pelvis without serious injury to either mother or child or to both, and advises Caesarean section before using forceps; or even when he ceases in his efforts with the forceps before he has done serious injury; or even if he could do a moderate amount of damage without infecting the mother; then in the hands of an expert Caesarean section would reach its highest perfection, namely, 100 per cent. of recoveries, which, indeed it has almost reached in this year of 1909.

But, beside this class of deformed or disproportionate pelvis, which still gives a very small percentage of deaths, there have been added two other classes of women, who, because they are operated on before any injury whatever has been done to the soft parts, promise to give a death rate as low as an average delivery in a private house, namely, about one-half of one per cent. for the mother, and still better for the child. One of these classes comprises the women with puerperal convulsions coming on just before the onset of labor. Up to a few years ago the best we could do for them was an *accouchement forcé*, which has a high death rate for both mother and child, even if the mother were in good condition. But the woman with puerperal eclampsia has been an anaemic woman for several months, and has a low opsonic index; so that

injury which a woman in good health but with a contracted pelvis might easily have recovered from, is fatal to her. It is probable, however, that even in these cases there will be one hundred per cent. of recoveries as soon as the whole mass of family doctors have been educated up to the point of abandoning entirely the *accouchement forcé* and of religiously refraining from doing any injury to the soft parts.

The other class, namely, those with placenta praevia, which is fortunately a very rare one, but which until a few years ago had a death rate as high as forty per cent. in Europe and ten in America for the mother, and much higher for the child, when treated by rapid delivery, now gives a mortality almost *nil* when delivery takes place by Caesarean section.

With all these improvements taking place, we are justified in assuring a woman with a deformed pelvis or with albuminuria or placenta praevia that she and the child run less risk from delivery by Caesarean section than by any other natural or artificial process, and that if she should become pregnant again and if any of these three things should happen for the second time, which they are not very likely to do, she can be delivered again and again by Caesarean section, with little, if any, greater risk than that of an ordinary confinement. So that if the patient and her doctor leave it to us to do as we think right, we will not sterilize her. But what shall be our attitude if the woman demands to be sterilized, so as to be saved from the inconvenience or expense or the slight risk which some might claim for the operation? I am inclined to think that in that case we are justified in complying with her request; not by removing the ovaries, but by taking out an inch or so of the uterine end of the tube and sewing the peritoneum over the interstitial part.

Vaginal Caesarean section has the great objection of taking valuable time when every minute counts; for, after cutting the cornu, you still have to do an *accouchement forcé* with all the danger of sepsis.

238 Bishop St., Montreal.

## TUBERCULAR CONJUNCTIVITIS.

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BY T. ALEXANDER DAVIES, M.B., TORONTO.

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Baby H. Aet 7 months. About three months ago mother noticed sore spot on the skin of the lower right lid toward the outer side. She consulted a practitioner, who said it was constitutional, and that the baby would grow out of it. The mother says eyes have never been red, and was much surprised to see the condition of the conjunctiva on my everting the lids. The child feeds well from the breast, and the mother is in good health. The baby is also allowed arrowroot biscuits at irregular intervals. The baby sleeps well, is well nourished, and with the exception of frequent constipation, is apparently in good health. The mother says she has not had the time to give the baby the necessary attention as regards regularity of feeding and fresh air. They live in a flat. She used boracic lotion for the eye several weeks previous to the present consultation, this being the only treatment.

*Examination.*—Jan. 5th: Bulbar conjunc. of both eyes bright and clear. The right eye, O. D. appears smaller than the O. S. on account of swelling of the lids of former. The brownish spot which the mother first noticed three months ago is present on the skin of the R. lower lid, near outer canthus. On perforating this, a small amount of pus and serum exuded.

On everting the upper lid of the R. eye, there is present an irregular, diffuse, dull-red swelling of the conjunc., numerous lymph follicles, more or less discrete, being markedly affected, some of them presenting greyish-red tag-like granulations; others flatter, and bleeding from the mere eversion of the lid. The process involves the entire lid from the margin to the retrotarsal fold. The lower lid presented small, reddish-yellow pin-head points, mostly confined to just within the tarsal plate. There is no marked exuberant granulations on the lower lid, such as are to be seen on the upper.

The condition is confined to the right eye. The left appears free.

*Treatment* since Jan. 5th: Lot. Ac. Boric., 25% Argyrol, p. 4 h. Ung. Hyd. Ox. Flav. 1%. Malted food. Fresh air.

*Office Treatment.*—Arg. Nit. 2% every fourth day, followed by 50% Argyrol.

(Result: Marked improvement.)

**ABDOMINAL PREGNANCY PAST TERM.\***

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BY W. J. HUNTER EMORY, M.D., TORONTO.

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Mrs. A., aet 35, gave history of normal pregnancy, which, according to patient's reckoning, should have terminated some three weeks prior to date of examination. Up to previous fortnight fetal movements had been frequent and strong; none felt in past two weeks.

Examination showed uterus normal in size and position.

Abdomen enlarged to correspond with period of full-term pregnancy, though somewhat less ovoid and prominent in median line.

Abdominal walls quite thick. A sense of elasticity was imparted on palpation over entire abdomen, with areas of distinct fluctuation and distinct solid masses could be felt here and there, but no fetal parts could be definitely made out, owing to the unusual thickness of abdominal wall.

Stethoscopic examination was negative. A probable diagnosis of abdominal pregnancy was made, with ovarian papillomata as an alternative possibility.

Operation was advised, and performed next day, resulting in the finding of a full-sized dead fetus in the abdominal cavity.

The placenta was found firmly adherent to the descending colon, meso-colon, and numerous coils of small intestine, occupying the whole left umbilical region, having no connection whatever with any of the pelvic organs.

On finding the fixation of the placenta to be so very firm over such a large area of important structures, all efforts at enucleation were quickly abandoned. The membranes were trimmed away, and the umbilical cord brought out through abdominal incision, surrounded by well of gauze, brought down well upon the placenta.

Around this the incision was closed, and patient put to bed. Slight traction was made upon the umbilical cord at intervals of a few hours for the first twenty-four hours, but this elicited no signs of yielding. On the third day the gauze was removed, there being no discharge, and temperature and pulse normal. The wound healed very quickly, the cord separating about the seventh day, much as separation occurs from infant. The convalescence was quite normal, with the exception of slight colicky pains, which

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\*Read before the Section on Surgery, Academy of Medicine, Toronto.



continued at intervals about the placenta site for several weeks, and then entirely disappeared.

The case illustrates three facts which seem of some interest from the standpoints of physiology and abdominal surgery.

First.—Fecundation, it would seem, must have taken place in this case in the peritoneal cavity.

Second.—Full-term abdominal pregnancy existed, in which there was no connection of any nature whatever with any pelvic organ.

Third.—Dr. Robert Morris, of New York, has said he would not be afraid to leave a pound of aseptic beefsteak within a healthy peritoneal cavity. This case proves the ability of the natural forces within the peritoneum to take care of a full-sized placenta.

For some weeks after the operation the placental mass could be plainly outlined by palpation, constantly diminishing in size, until it ultimately became indistinguishable.

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DR. MARLOW: Referred to case in which he assisted Dr. Ross in removing a dead child from the abdominal cavity within a week after the death of the child. In this the placenta was successfully removed, though the bleeding was severe. Favored leaving the placenta *in situ*, and closing the abdominal cavity in attempting to remove a living child.

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## MEDICAL THOUGHTS, FACTS, FADS, FANCIES, AND FOIBLES.

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BY JAMES S. SPRAGUE, M.D., PERTH, ONT.

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There is no profession, calling or occupation in this or other lands which can claim a greater absence of leaders as medicine; and equally true is this, that medicine has but very few in its ranks who, unless for personal interests or other unworthy and non-professional motives, are advocating the necessity of opposition to the many modern and medical cults—encouraged by Reverend Doctors as Emmanuel Movements, patronized by fakirs—defamers of medicine. To those who may be termed as leaders we look vainly for objections and denouncements of such calamities and evils that these inane cults promulgate and encourage, especially injurious to the labors of medical men and the advancement of science, and not least to the teachings of the Church of Christ, whose disciples are too often influenced injuriously by following false guides in these our times, when unsettled beliefs and doc-

trines too frequently are entertained and announced by doubting, profoundly ignorant, or profoundly educated men, who cannot fully understand the simple teachings of the Saviour of men.

It is indeed lamentable to notice—even daily—in our public prints, the criticisms by those whom we are taught to call reverend, of our earliest beliefs—more and more cherished as the years teach us immortality. And yet these, or such as these, recognizing their influence over the souls of men is lessening, are, strange to state, among those who are either recommending Duffy's Whiskey or the encouragers or promoters of "a penny in the slot" medical cult, antagonistic to our researches and even the church.

Weltmerism apparently has had its day, and Osteopathy, in due time, had its origin in the same State—Missouri—and although with less backbone than Christian Science, this system, cult, or delusion still is striving in this, the banner Province of our Dominion, for recognition, and Major Craig, of East Wellington, has presented a petition from the Mount Forest Board of Trade to our Provincial Parliament, asking for incorporation, and no doubt a college, wherein will be taught Osteopathy, and wherein, no doubt, certificates qualifying or certifying to *Doctor in Osteopathy* as a prize, will be offered.

Why not legislation be enacted in the interests of Mrs. Eddy's disciples, and allow them to disgrace our civilization, the church and our honored profession, not least the universities, with their glorious records? It is hoped that the intelligence of our legislators will not dishonor the transactions of our Parliament, nor dishonor themselves, nor the sacred trust imposed on them by the electorate, by encouraging, tolerating or in any manner sanctioning this or any other delusion as worthy of an existence in our midst, and associated in every sense with the medical profession or its interests. The medical profession of our Dominion, and the people thereof, are victimized too often by fakirs and many crazed medical cults, organized by swindlers of no mean order, whose numbers are increasing even in proportion to civilization, the growth and stability of our state universities, the advancement of medicine, and the widespread interest for the public health; thus, there exists no demand for Osteopathy, Christian Science, Chiropractists, Vito-pathists or Emmanuel Movements, unless we wish to allow visionaries to nurse their visions, delusions and other brain-storm theories that our national asylums and retreats may not become too congested. "Forgotten sons have toiled and burned" that we might live, and the civilization and refinement of the minorities among the workers will ever hold back those who discourage and impede the labors and altruistic researches of our profession. Yet, the

labor in such efforts is tedious, often unrecognized by the great unwashed and illiterate majority, who think they think, and yet do not.

Our profession, in remote periods of history, when in alliance with that "divine conjunction" (half-doctor, half-priest), knew no progress when thus throttled, but, freed from its stranglings and shackles, it has reached such achievements and glory as to incur the enmity, and even the envy, of the church; hence, either seeing "the glory departing out of Israel," or for increased power or more shekels, wants the restoration of affiliation—even an "Emmanuel Movement." Psycho-Therapeutics, yet without the qualifications, studies or licence of the state or province.

Although for more than forty years in practice (and yet my sign still swings), and in the thankful possession of perfect health, perfect peace, and abundant competence, surrounded by my books and office treasures, yet, with the intense love for and devotion to *Medicine* and its best interests, my prayer is that "pitcher be broken at the fountain" in my perishing body ere the word *Osteopathy* be found in the register of the transactions of our College of Physicians and Surgeons, or in the reports of the acts of our Parliament.

The influence, either for good or evil, so decidedly apparent in many of our medical journals is a consideration worthy of much study, especially by young medical men, whose self-respect, whose respect for all that ennobles the profession, and whose ideals may become woefully and irrevocably dethroned, or preserved, and with the years intensify his devotion to his work and his respect for his fellows. I know many journals that have a very demoralizing effect, and the young M.D., however brilliant, as subscriber, would silently and assuredly find himself enchained by views of common—yes, ignorant—writers, and by contributions of hired men, whose efforts are directed to the praise of compounds not in any sense ethical, and the debasement of our legitimate works on medicine.

Judge Riddell has prepared and delivered a series of lectures, of which "The Doctor in the Courts," "The Doctor as Judge, as Plaintiff, as Defendant, and as Witness," "Law and Medicine," "The Medical Expert as a Witness, etc.," which are of so important consideration as to reward every medical man, and there are in our cities—where are established Medical Faculties—others, who, with similar knowledge, could and most willingly would give such much-needed instruction and warnings. Why not, then, lectures, imperatively needed as these are, be regularly given during the medical course? Why not, also, lectures on purely professional interests, such as are found either in our Medical Ethics, or as

incidents or duties connected with practice—a study of the master minds, or of the Fathers in Medicine, the Antiquity of Medicine, Progress of Medical Thought, Modern Quasi-Medical and Delusive Cults?

Since the establishment of our Medical Council, much valuable time has been lost in discussions referring to matriculation qualifications, and such as now exacted are beneath what our age requires, and not equal to those of Quebec. If we are to maintain our profession as one of the trinity of learned professions, and to look for a Sydenham, a Stokes, a Sir Thomas Browne, a Hunter, or a master mind, either B.S. or B.A., must be the first gift, and acceptable one, too, of him who gives his heart to medicine, which is the "first of arts, without whose light all the rest would sink in night." Especially are these preliminary qualifications demanded, if doctors, as Gladstone prophetically said, are to become the rulers of nations; or if, as Virchow says, "Physicians are the natural attorneys of the poor, and all social problems and reforms should be largely worked out by them." If such obligations and duties await the life-work of doctors fresh from the mint, it is essential that they become prepared, and to remember that, although this age deals in realities, it is incumbent on each one of us to learn what Dr. A. Jacobi, of New York, a Father in Medicine, tells us: "Ideals are not for those only whose heads tower above ours, and the very soles of whose feet seem to walk over the clouds, but for all of us who take pride in admiring great examples and try to follow them."

The same reverend, learned and aged father wisely says: "Read your Hippocrates, my young friends." Such I repeat, and add: "Fellow-practitioner, read Sir Thomas Browne's "Religio Medici," and learn the nobility of medicine, and the nobility and scholarship of the author. Compare your learning with his learning and abilities, and bow your head. If you consider yourself a weak link in the medical chain, study your weakness. *Audi, vide, tace!* until you feel your strength, and do not attempt that which you cannot finish. (*Ne teutes aut perfice.*)

I hope that since we deserved the name of friends, that part of mine may live in thee, and move thee on to noble ends.—In Memoriam.

*Pinis opus coronat.*



## Medicine

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GRAHAM CHAMBERS, R. J. DWYER, GOLDWIN HOWLAND, GEO. W.  
ROSS, WM. D. YOUNG.

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**Freud's Conception of the Psychology of Neuroses.** By A. A. BRILL, PH.D., M.D., New York City. *Medical Record*, Dec., 1909.

Prof. Freud is happy in possessing several enthusiastic pupils, and A. A. Brill is perhaps the foremost. This is a brief paper, declaiming Freud's *theories*, and giving a good clear account of them.

Psychoanalysis is rapidly becoming more generally used, and psychotherapies more popular and more cultivated, and for these methods we are deeply in debt to the Freud school. Yet neither placing the basis of all these Psycho Neuroses on a sexual origin, nor acceptance of the influence of psychic shocks in determining motor and sensory changes, is wholly acceptable to all students of psychiatry. The danger in following such an origin is that we may delude our own minds as to its value by over-saturation, and accept far overreaching conjectures as facts.

G. W. H.

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**Relation of Rectal Diseases to the General Nervous System.** ERNEST LAPLACE, M.D., LL.D., Philadelphia. *J. A. M. A.*

Laplace (rather) overemphasizes the relationships of rectal diseases to nervous diseases, both on anatomical grounds, and also secondary to such causes as constipation.

The result of this relationship of cutaneous and muscular nerves to the visceral nerve supply of the rectum allows local conditions, as hæmorrhoids and fissures, etc., to produce reflex and referred pains in remote regions, while the depression produced by the pain of these morbid processes acting on the pelvic sympathetic produces general depression of the nervous system.

Constipation is in truth a serious condition, as it allows of the absorption of noxious products which depress the nervous system.

G. W. H.



**Neurasthenia in General Practice.** By H. B. ANDERSON, M.D.,  
L.R.C.P. (Lond.), M.R.C.S. (Eng.). *Can. Jour. Med. and Surg.*

Following these abstracts on psychoneuroses with the views of a proctologist urging rectal causes and a psychiatrist localising on psychical disorders, we have an excellent paper by Anderson on the neurasthenias from an internist's standpoint. Causation, he affirms to be psychic, overstrain, toxemias, heredity (U.S.W.). Symptomology also derived from psychic motor, sensory and vaso-motor activities, evidenced (a) by such general signs as fatigue, depression, headache, insomnia, pains and loss of weight; (b) by disturbed functions, as for instance, palpitation, throbbing, hyperchlorhydria, intestinal disorders, indicanuria, frequent micturition; lastly, by secondary symptoms, as anemias, autointoxication. Finally, he concludes by urging not only the use of psychotherapy, but of all forms of treatment, best suited to the case, whether they be Weir Mitchell and Rest, Hydrotherapy, Diet or other well-known methods.

G. W. H.

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**Cerebro-spinal Meningitis; Clinical Observations and Serum Treatment.** By LOUIS FISCHER, M.D., New York. *New York Medical Journal*, October, 1910.

Cases of cerebro-spinal meningitis may be mild, abortive or severe.

The severe ones are most fatal to babies of one year and under, but yet the mortality, even at this age, in common with all other ages, has been lessened by the *serum* treatment.

The symptoms of the late epidemics were: Sudden onset, with chill; respiration frequently Cheynes Stokes; vomiting; frontal or occipital pain; sensitive tendons; Kernig's sign; opisthotonus; arthritis; petechial eruption; photophobia and nystagmus.

G. W. H.

## Psychiatry

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W. C. HERRIMAN, ERNEST JONES.

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**The Traumatic Neurosis.** By PEARCE BAILEY. *New York Med Journal*, Jan., 1910.

Bailey considers that the "traumatic neurosis is distinct from other psychoneuroses in origin, in the mould in which its symptoms are cast, and in the peculiar feature which conditions its prognosis." This feature is of course the matter of litigation. He holds, however, that the wish for a large verdict does not play the important part generally thought, and that more important is the natural desire for revenge.

E. J.

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**Experimental Studies on the Aetiology of Acute Poliomyelitis.** By STRAUSS and HUNTOON. *New York Med. Journal*, Jan. 8, 1910.

This paper is based on the study of six fatal cases. The chief conclusions are: (1) The disease can be produced in a *Macacus rhesus* by intraperitoneal inoculation from a fatal human case. (2) Attempts to transfer it from one monkey to another have, up to the present, been unsuccessful. (3) The cerebro-spinal fluid of acute cases does not contain the virus in an infective state, and the reported bacterial findings in the cerebro-spinal fluid are due to either contaminations or secondary invaders. (4) When the disease is clinically recognisable the virus is probably no longer present in the blood. (5) From the close resemblance of the disease to rabies, in its anatomical changes, symptoms, and mode of transference, it is probable that the virus is not bacterial, but protozoan in nature. (6) Acute poliomyelitis is due to an actual infection, not to any poisoning by a toxin.

E. J.

## Ophthalmology

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D. N. MACLENNAN, W. H. LOWRY.

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### **Excision of Lachrymal Sac Before Operations on the Eyeball.** *In La Clinica Oculistica*, August, 1909.

Calderaro gives the results of his experience with this operation from a bacteriological point of view. His conclusions are briefly as follows: The number of organisms of all kinds is diminished, and within the first few days the virulence of those remaining is lessened; if the eyes be tied up for a few days, the bacteria increase both in number and virulence. After some months the conjunctiva usually shows in examination no pathogenic germs, but the usual saprophytes, but if the eyes be tied up again, the pathogenic germs reappear, but in diminished virulence, in about a third of cases.

He has not found probing of the stricture to be of as much service in lessening the number of bacteria, as removal of the sac. Removing of the lachrymal gland, with the resulting diminution of tears, tends to increase the growth of pathogenic organisms.

W. H. L.

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### **The Influence of Adrenalin in Intraocular Tension.** *Ophthalmoscope*, December, 1909.

This is a review of Rubert's investigations in connection with the use of adrenalin in glaucomatous eyes. He says that to use adrenalin indiscriminately upon the eyes of elderly people is a mistake, and to instil it into an eye affected with glaucoma is very wrong unless the patient is under immediate and constant observation. He quotes a number of instances where adrenalin seemed to cause exacerbation of the glaucoma symptoms. He speaks of one case of absolute hemorrhagic glaucoma, in which the instillation of two drops of solution caused such an acute attack that the eye had to be enucleated. On the other hand, other instances are given where the use of the adrenalin was of decided benefit in glaucoma patients. It seems that there are two varieties of action. Either the adrenalin acts beneficially, causing a decided fall of pressure within the eye, or it has the opposite action, causing a rapid rise of intraocular pressure, with the resulting serious

consequences. The author, therefore, is of the opinion that one should never prescribe adrenalin to out-patients who are liable to glaucoma, but that it is often of great service to patients who can be kept under constant observation.

W. H. L.

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**The Premature Appearance of the Photo-Motor Reflex During Fetal Development.** MAGITOT, in *Ann. d'Oculistique*, March, 1909.

Magitot gives the results of his investigations after having examined fifty prematurely-born infants. The light reflex was faintly present at the end of the fifth month of gestation, was more marked during the sixth month, and by the middle of the eighth month became as active as it is at full term. The author considers that the appearance of the reaction during the fifth month is in agreement with the known development of the visual cells, origin of the nuclei of the third nerves, and partial maturity of the sphincter pupillæ of that period.

W. H. L.

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**Cyclodialysis.** WALTER L. PYLE, of Philadelphia. *American Journal of Surgery*.

The object of the operation is to reduce intraocular pressure by the establishment of an artificial communication between the anterior chamber and the suprachoroidal space. The technique, briefly, is to make an incision with a keratome into and through the sclera at a point 5mm. from the limbus; insert an ordinary iris spatula between the chorioid and sclera, push it forward into the anterior chamber, and by means of gentle side movements of the spatula, to separate the ciliary body from the sclera.

He says the operation should be gravely considered in primary glaucoma, when high tension, absence of anterior chamber and widely dilated pupil militate against the performance of iridectomy as dangerous, and in fact almost impossible. It is indicated in glaucoma when one eye has already been destroyed by glaucoma malignum, or when it is undesirable to confine the patient to bed, because of extreme nervousness, persistent coughing, great prostration, or old age. He states that cyclodialysis has proved of advantage in certain cases of secondary glaucoma, viz.:

1. Cases of anterior synechiae, when iridectomy did not reduce the tension.

2. Cases of glaucoma following the extraction of cataract, provided, of course, that the edges of the coloboma are in proper place.

3. When the lens has been dislocated into the vitreous, as in these cases the inevitable escape of vitreous during the performance of an iridectomy is a positive danger.

W. H. L.

## Rhinology, Laryngology and Otology

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GEOFFREY BOYD, GILBERT ROYCE.

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**Aural Emergencies in Infants and Children.** By J. F. McKERNON.  
New York. *The Post-Graduate*, Feb., 1910.

In this paper the author details the more common ailments affecting the ears of children, and mentions some simple measures for their relief and cure. In examining the ear for earache, it is best to wipe out epithelial debris and wax rather than syringe it out, as the latter produces congestion of the membrana tympani, and so clouds the diagnosis. For the simple congestion due to a slight cold and consequent swelling of adenoid tissue or a beginning tonsillitis, he recommends a weak solution of cocaine and adrenalin in camphor water. Simple syringing with hot water will often relieve.

For marked bulging of the drum, any drops are contraindicated, the appropriate treatment being a free incision, preferably a long, curved marginal one. This should be followed by syringing with hot salines, boracic acid solution, or 1/4000—1, 10000 bichloride of mercury. The use in the external auditory canal of drops composed of laudanum and sweet oil should be condemned, as it clogs the canal should drainage be necessary, as well as acting as a culture media for germs.

In the removal of foreign bodies care should be taken not to injure the canal in any way, but to use the syringe first before resorting to instruments.

In eczematous conditions, first the cause such as acrid discharges, etc., should be removed, then the surface painted with acetum cantharides, followed by a soothing ointment. In accidental punctures of the drum membrane, all that is required is cleansing with saline or . . . . . antiseptic.

Impacted cerumen should be removed by the syringe, first softening it with peroxide of hydrogen or saturated solution of bicarbonate of soda.

Unexplained high temperatures are often caused by ear disease, and so the necessity of frequent examinations during the course of



infectious diseases, etc., becomes evident. The reason why many ears continue to discharge indefinitely after an attack of acute otitis is fourfold. First, the ear is allowed to rupture spontaneously, this rupture taking place too high, so that drainage is poor. Second, the presence of lymphoid tissue about the mouth of the Eustachian tube, preventing drainage through the tube to the throat. These lymphoid masses should be removed, and their presence may be suspected should a free drainage through the drum membrane fail to relieve a continuous discharge.

## Reviews

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*International Clinics.* By leading members of the Medical Profession throughout the world. Edited by W. T. LONGSCOPE, M.D., Philadelphia, with the aid of many collaborators, with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsie, Brussels, and Carlsbad. Volume IV. Nineteenth series. 1909. Philadelphia and London: J. B. Lippincott Company.

This volume is devoted to treatment, medicine, surgery, Röntgenology, gynecology, obstetrics, genito-urinary diseases, pediatrics, parasitology, laryngology and pathology. One of the best articles of the volume is by Simon Flexner, M.D., on the preparation and uses of antimeningitis serum. Dr. Flexner explains the mode of action and manner of administration of the serum, and gives indications for its use.

The other articles of the book are, with two or three exceptions, good. Among others, we think the following worthy of commendation: "Treatment of Cancer by Fulguration," by Pierre Fredet, Paris; "The Use of Tuberculin in Treatment," by Louis Hamman, Baltimore; "The Early Diagnosis of Cancer of the Uterus, with Operative Technic," by Thomas S. Cullen, Baltimore.

The volume as a whole maintains the high standard of previous productions of the work.

G. C.

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*A Text-Book of Physiology: for Medical Students and Physicians*  
By WILLIAM H. HOWELL, Ph.D., M.D., LL.D., Professor of Physiology, Johns Hopkins University, Baltimore. Third edition; thoroughly revised. Octavo of 998 pages; fully illustrated. Philadelphia and London: W. B. Saunders Company. 1909. Cloth, \$4.00 net; half-morocco, \$5.50 net. Canadian Agents: The J. F. Hartz Co., Ltd., Toronto.

The object of the text-book is well carried out in its contents, and it is to present in brief, compact form a modern physiology, well up to date, and at the same time to avoid all unnecessary theories and matter that is not absolutely of value to the readers it is meant for.

To-day a "Physiology" must be at the elbow of a modern practitioner, and the necessity is well shown by the placing of Physiology as an advanced subject in the fifth, as well as in the primary, work of the medical student.

This book will satisfactorily suit both the college student, and even more so the thoughtful physician who fears that rust is commencing to play havoc with the groundwork on which his professional ability rests.

G. W. H.

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*A Text-Book of the Practice of Medicine.* By JAMES M. ANDERS, M.D., Ph.D., LL.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Ninth Revised Edition. Octavo of 1326 pages; fully illustrated. Philadelphia and London: W. B. Saunders Company. 1909. Cloth, \$5.50 net; half-morocco, \$7.00 net. Canadian Agents: The J. F. Hartz Co., Ltd., Toronto.

On reading this last edition of Anders' Medicine, the first thought that impresses one is the similarity in arrangement to the popular text-book of Osler. Indeed it is Osler, but with the advantage that it is issued in 1909, whereas the other was published in 1905, and it is therefore much more suitable for those desiring a newer text-book. In some regards and on some subjects, besides being more modern, it is also better than Osler, and perhaps one could adduce in favor of this statement that Anders handles his therapeutics in more satisfactory style. The more recent additions that are interesting are such subjects as the "Hemolytic Serum Test in Gastric Carcinoma, Chronic Poliomyelitis in Adults, Grocco's Sign in Pleurisy, Serums in Meningitis, Leukamia, and many others.

G. W. H.

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*A Text-Book Upon the Pathogenic Bacteria.* For Students of Medicine and Physicians. By JOSEPH MCFARLAND, M.D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia. Sixth Revised Edition. Octavo of 709 pages; fully illustrated, a number in colors. Philadelphia and London: W. B. Saunders Company. 1909. Cloth, \$3.50 net. Canadian Agents: The J. F. Hartz Co., Ltd.

The author of this text-book has prepared for the medical student and general practitioner a book of convenient size, which is not too technical in character, and from which may be obtained

a good knowledge of Bacteriology. This sixth edition has been brought well up to date by freely drawing upon the publications of the various men interested in this subject in other countries. An attempt has also been made by foot-notes to give some of the more important references to these publications. The volume is well illustrated by numerous plates, which show the various steps in bacteriological technique, the morphological and cultural characteristics of the pathogenic bacteria, and the lesions which they produce in man. In the preparation the author's endeavor has been to arrange the subject matter systematically and practically as regards the chapters and pages. The volume is compact; it contains seven hundred pages, one hundred and one illustrations, and is well bound and indexed.

O. R. M.

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W. B. Saunders Company, the medical publishers, of Philadelphia and London, have just issued a new edition—the thirteenth—of their handsome Illustrated Catalogue. It contains some twenty new books and new editions, and besides numerous black-and-white illustrations, there are two color cuts of special value. We strongly advise every physician to obtain a copy—sent for the asking. It will prove a ready guide to good medical books—books that we all need in our daily work.

# Dominion Medical Monthly

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## COMMENT FROM MONTH TO MONTH.

What the Local Health Officer Can Do in the Prevention of Typhoid Fever is well set out in the *Public Health Reports* of the United States, by Dr. L. L. Lumsden. As others have said before, typhoid fever is a disgrace to civilization, and its prevention is one of the greatest problems with which sanitarians have to deal.

That its mortality is a large one is seen from a comparison of statistics of different countries. In Scotland, for the period of 1901-1905, the mortality was 6.2 per 100,000 of the population; Germany, 7.6; England and Wales, 11.2; Belgium, 16.8; Austria, about 19.9; Hungary, 28.3; Italy, 35.2; in the United States estimated at about 46.0.

The incidence of typhoid fever in any community to any great degree stirs up the lay mind, which then becomes alive to the dangers of an extensive outbreak. Then the question is asked, why was it not prevented; and woe betide the hapless health officer if he has not kept a keen edge upon his observations.

Epidemiologic studies go to show that this is a communicable disease, spread from person to person. Germs from the excreta gain access in some way to the alimentary canal from typhoid fever patients and bacillus carriers; and there seems no reason to doubt



that it is directly transmissible from the sick to the healthy, or indirectly so, that is both contagious and infectious. Therefore the prevention of typhoid fever must take into consideration that there is danger not only from the patients themselves, but as well from the various vehicles, as water, milk, fingers, food, flies, etc.

First—The local medical health officer must become informed of the best-known methods of prevention. This, Dr. Lumsden states, consists largely in the care of excreta from sick persons and of proper general sewage disposal.

Second—He should secure the prompt report of recognized cases and of suspected cases, so that preventive measures may be begun early. The difficulty of making prompt diagnoses is recognized by all physicians from the symptomatology alone, and as these unrecognized cases possess elements of extreme danger, it is important that the health officer be promptly informed of even the suspected cases. This should be made a legal requirement. As in diphtheria, there should be laboratory facilities to aid in diagnosing suspected cases.

Third—The medical health officer should advise with the attending physician and family as to the most efficient methods of prevention at the patient's bedside, and should see that these are carried out. That contact infection plays a rôle in the spread of the disease is borne out by the fact that about 20 per cent. of the cases in the District of Columbia, in 1907 and 1908, gave a history of direct or indirect association with previous cases in the febrile course of the disease. Therefore typhoid fever is not always a water-borne disease pure and simple. Such being the case, reasonable isolation is advisable. It is essential in carrying out bedside disinfection of the excreta that the disinfectants are made properly and used properly.

Fourth—Have the preventive measures continued as long as the dejecta are infective. It cannot be too strongly brought home to patients and their attendants that disinfectants must be as efficiently used during convalescence as during the active stages of the disease. The safe guide for cessation of these would be bacteriologic examination.

Five—Discover bacillus-carriers and safeguard against the spread of infection from them. This would involve much activity on the part of the health officer, and means an inspection of premises where foods and beverages were sold to those families in which there had been unusual occurrences of the disease. It would mean also inspection of servants—and one is reminded of the case of "Typhoid Mary," a New York cook, who carried the disease into every family whose service she entered. Any such bacillus-

carrier should certainly be prohibited handling any food or beverage to be consumed by man.

Six—Secure proper disposal of sewage. It is almost superfluous to say this should be done of all persons, whether sick or well, but especially for the ambulant and convalescent.

Seven—Prevent the introduction of infection from without through the water supply, the milk supply and the general food supply. Money is needed for this; money, the sinews of sanitation, even to the extent of a costly filtration plant for the water or a municipal pasteurizing plant for the milk.

Eight—Secure the co-operation of practising physicians. The health officer and the physicians of a community should work hand in hand in the best of harmony.

Nine—Exercise an influence in the local medical society, so that the society may be a school of instruction in the principles of prevention, as well as of the cure of disease. In this society local problems of sanitation could be illuminated.

Ten—Make the health office educative. Properly prepared articles for the local press would be of the most far-reaching influence.

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**Canadian Medical Association.**—A little over two months and the 43rd annual meeting of the Canadian Medical Association will have passed into history. Under the guidance of Dr. Wright, the President-elect, and Dr. Wishart, the Chairman of the Committee of Arrangements, all the general committees as well as the sections are working right willingly for an unusual success of the meeting on the 1st, 2nd, 3rd and 4th of June.

In the sections it is understood the programmes are filling up nicely, and that there is going to be unusually good and interesting papers.

The Entertainment and Transportation Committee are arranging for two general excursions, one to Niagara Falls and the other to the Ontario Agricultural College at Guelph.

For the purposes of transportation, the transportation companies and their respective passenger associations will couple in the matter of rates the meetings of the Canadian Medical Association and the Canadian Dental Association, so that it is quite safe to say that return, for single fare, will be assured.

We would enjoin our readers to keep the above dates open, so as to avail themselves of the pleasure and profit of attending this meeting.

**Rabies in Canada**, or, more correctly speaking, in Ontario, has recently become of such pronounced dissemination throughout the western part of the Province as to call for conjoint action on the part of the federal and provincial authorities.

Writing with a good degree of authority, and, from his position, with an unusual knowledge of the subject, Mr. Charles H. Higgins, B.S., D.V.S., pathologist to the Department of Agriculture, Ottawa, gives a concise history of Rabies in Canada in the January issue of the *Montreal Medical Journal*.

Although occasionally observed in the Dominion, there has never been up to the present time any pronounced outbreak. Prior to 1899, Niagara Falls and its vicinity recorded outbreaks; and between that date and 1905, Dr. Higgins states no material sent to his laboratory gave unmistakable evidence of the presence of the disease.

A case of a man being bitten by a wolf in 1904, reported from Victoria, B.C., contracting hydrophobia, is not considered an authentic one by Dr. Higgins.

Outbreaks have been reported from time to time in the Niagara Peninsula since 1905, traced generally to dogs across the river.

In Manitoba an unusually long incubation period of ninety-three days has been reported in a horse, but the usual incubation period is from fourteen to twenty-five days.

The statement in Dr. Higgins' paper, that "the Pasteur treatment is furnished to physicians in the United States by the Public Health and Marine Hospital Service," is an interesting one to Ontario physicians in view of the fact that the "scare" in this Province has been so acute as to drive practically everyone bitten by a dog to New York for treatment.

It will be eminently satisfactory to the medical profession in Ontario that the Government of the Province has taken the matter up, and that hereafter there will be no necessity for anyone to scurry off to New York as soon as bitten by a dog, even although it is "feared" that particular dog has rabies.

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**When compulsory vaccination** is sought to be set aside by a bill at the instance of a private member in the Ontario Legislature, the subject of smallpox looms up interestingly large.

From the *Public Health Reports* of the United States we extract a few items in connection with the extent of smallpox in that country, and especially Germany, where vaccination and re-vaccination are compulsory.

In the United States, in 1907, there were 17,220 cases of small-

pox, with 74 deaths; in 1908, 35,174 cases, with 92 deaths. This shows a small mortality for a comparatively large number of cases, and looks as though smallpox is not the dreaded and dreadful disease it once was.

Germany had 345 cases in 1907, as against 256 in 1906. The deaths in 1907 were 63, a mortality of 17.97 per cent, a death rate far in advance of what is recorded in the same year in the United States, and which would indicate a greater severity in the disease than on this side of the Atlantic.

In the five preceding years, in Germany the deaths were, respectively, 47, 30, 25, 20 and 25.

Of the 345 cases in Germany in 1907, 22 died who were unvaccinated; 14 died unknown as to vaccination; 3 died who were unsuccessfully vaccinated; two died who were vaccinated too late; ten died who had been vaccinated once; three died who were re-vaccinated too late; nine died who had been revaccinated.

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**The West Toronto Territorial District Society** met in the Academy of Medicine at the call of its representative on the Ontario Medical Council, Dr. J. S. Hart, on the afternoon of the 2nd of March. Of the two hundred-odd medical practitioners in the district, barely one dozen answered the call. A fine showing, this; a manifest lack of interest in the affairs of the Council.

That only those universities which had medical teaching bodies should be represented on the Council was the unanimous opinion of the meeting. It was felt, also, that there were too many representatives on the Council, and that its affairs could be better conducted by a much smaller body, one speaker instancing the General Medical Council of Great Britain, with about 34 members to a medical population of some fifty thousand, while in Ontario the ratio was something like 23 to three thousand. A reduction in the number would also save considerable expense.

Although the homeopaths might jealously defend their representation, the impression was very general that that representation as now constituted—five—was most unfair to the medical body throughout the Province.

Whilst it has been generally considered that there was a great deal of unrest in the profession throughout the Province on Council matters, the attendance at this meeting would seemingly warrant one in saying it is not particularly apparent in the territorial district of West Toronto. It was quite evident there was satisfaction with the stewardship Dr. Hart had rendered for the confidence reposed in him.



## News Items

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DR. GORDON BELL, Winnipeg, has returned from Boston.

DR. LAUTERMAN, Montreal, is abroad.

DR. BRETT, Banff, Alberta, has gone to Vienna for graduate work.

DR. E. E. MEEK has been appointed Medical Health Officer of Regina.

DR. E. S. POPHAM, Winnipeg, has returned from a visit to England.

TRACHOMA has been discovered in school children in Regina and Winnipeg.

THE Lady Grey Hospital for Tuberculosis was opened at Ottawa on February 15th.

DRS. R. BOULET and L. De L. Harwood, Montreal, have returned from Cuba and Mexico.

MR. J. C. EATON has recently donated \$250,000 for the surgical ward of the new Toronto General Hospital.

DR. J. S. MATHIESON has been elected President of the Brandon Medical Society, and Dr. E. C. Beer, Secretary.

THAT the Manitoba University, Winnipeg, should be a state-aided university is the opinion of a majority of the commission enquiring into its affairs.

THE Western Hospital, Montreal, has decided not to amalgamate with the Royal Victoria, same city. The hospital is sound financially and medically.

THE new Toronto General Hospital will have 36 beds for the eye, ear, nose and throat departments; 39 beds for gynecology; 145 beds, general surgery; 150, medicine; 9, emergency; 36, obstetrics. This will be 124 more beds in the public wards than in the present hospital, and 22 more in the private and semi-private wards.

PASTEURIZED milk is now supplied 1,200 children annually in the Sick Children's Hospital, Toronto, and to 12,000 outside patients. The hospital has its own pasteurizing plant.



DR. CHARLES F. MARTIN, Montreal, has gone on a two months' trip to the Mediterranean.

DR. GEO. D. PORTER, travelling medical secretary of the Canadian Association for the Prevention of Tuberculosis, has left on a lecture tour of Western Canada to the coast.

THE Verdun Protestant Hospital for the Insane, Quebec, admitted 197 patients last year. The total population is 783, the largest in the history of the institution.

SASKATCHEWAN Bureau of Health is to wage active war against tuberculosis. Local leagues are to be established in forty-one electoral districts. A sanatorium is contemplated. Dr. M. M. Seymour, Regina, is chief of the Bureau.

DR. J. L. TODD, McGill University, Montreal, has been awarded a gold medal by the Liverpool School of Tropical Medicine for sometime research work in connection with sleeping sickness on the coast of West Africa.

DR. W. A. R. MICHELL, Toronto, late of the Shackleton Antarctic expedition, gave an interesting address before the Aesculapian Club on the evening of the 11th of February. Dr. Michell recently received from His Majesty the King a handsome bronze medal.

DR. JOHN M. PIPER, Toronto, died on the 7th of February of acute nephritis, aged 55 years. Before coming to Toronto four years ago, he practised for 25 years in London, Ont., where he was surgeon to the 7th Fusiliers. He was a graduate of Victoria of the class of 1880.

THE Victorian Order of Nurses, Toronto, attended 709 patients the past year, necessitating 9,399 visits by the nine nurses in the service. In addition, 510 infants received attention. Forty additional Toronto doctors employed the nurses during the year. The receipts were \$6,078.09.

THE ex-house officers of the Toronto General Hospital, of which there are now nearly three hundred, will hold their annual banquet at the King Edward Hotel on Easter Monday evening. Dr. Roland Hill, of St. Louis, will deliver the scientific address, following which the usual toasts will be drunk. It is expected that the first presentation of the gold-headed cane will take place. This has been awarded to Dr. Thos. Cullen, of Baltimore, who was considered to have made the best contribution of any ex-house officer to medical literature last year.

THE new buildings which are being erected for the accommodation of the Medical Faculty of the McGill University, Montreal, and to replace those which were destroyed by fire three years ago, are now approaching completion, and will, it is hoped, be ready for occupation in the early summer. The Medical Faculty has therefore decided, with the sanction and approval of the Principal and the Governors of the University, to hold the next Annual Convocation, for the conferring of degrees in medicine in the new building, and to arrange for the formal opening ceremonies at the same time; and to further signalize the event by carrying out a long-contemplated plan for a reunion of all her graduates. His Excellency the Governor-General has consented to be present, and a provisional programme has been arranged. All graduates are cordially invited to be present, and it is hoped that they will be able to accept. A more formal invitation and a completed programme will be sent later.

THE Fourth Annual Meeting of the Canadian Hospital Association will be held in Montreal on Easter Monday and the following Tuesday, March 28th and 29th. Mr. H. E. Webster, Superintendent of the Royal Victoria Hospital, Montreal, is President. Dr. Christian Holmes, of Cincinnati, and other eminent hospital workers will be present. One feature of the meeting will be a visit to the various Montreal hospitals, with demonstrations on some special features of their work. All hospital superintendents and hospital trustees are eligible for active membership, and anyone else particularly interested in hospital work is eligible for associate membership. For further information in regard to the meeting, application may be made to the Secretary, Dr. Brown, Toronto General Hospital. Copies of last year's proceedings can be had from him on application.

## Publishers' Department

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IMPORTANT NOTICE.—Those of our readers who are interested in the various forms of Physiologic Therapeutics (including Hydrotherapy, Electrotherapy, Massage, Hyperemia, etc.) will be glad to know that it is proposed to shortly inaugurate a new journal devoted solely to the delineation of the progress made in these lines of therapeutic endeavor. *The American Journal of Physiologic Therapeutics* will be published bi-monthly, and the subscription price will be \$1.00 a year. The names and addresses of all interested physicians should be sent in, and those desirous of subscribing at once may enclose their remittance when writing. It is to be hoped that a widespread interest may be aroused in this matter. Write *now*, while this is fresh in your mind, to *The American Journal of Physiologic Therapeutics*, 72 Madison Street, Chicago.

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THE CAUSES OF ARTERIO-SCLEROSIS.—In a recent address, Dr. Osler discusses arterio-sclerosis (*Brit. Med. Journ.*, Dec. 25, 1909). Though there were sixty-two theories of its causation, he thought the three main factors were time, tension, and toxins. [Osler is not averse to the use of alliteration.—Editor.] As to the first, atheroma of the aorta was not in all cases senile; it was exceptional to find no patches of arterial degeneration in any body *post mortem*, and even children might show some slight foci of fatty degeneration. It might be a purely senile change, but the influence of heredity was marked, and arteries designed to wear till 70 might go to pieces at 40. It depended on the nature of the rubber tubing; or, again, the rubber might be good, but was subjected to bad usage. This brought him to the second factor—tension. It was the pace of the machine that counted, and vessels were not made for constant stress. There were two main types of stress: (1) The tension of life, when the candle was burned at both ends. He instanced the New York Stock Exchange man, who lived hard, smoking, eating, and drinking freely; at 40 there were knocks at the door, and creditors appeared in the shape of dyspnea, angina, etc. (2) The second type was muscular tension, due to over-exertion. The liability of cavalrymen to popliteal aneurysm was noted, and right-handed workers were found to be prone to arterial degeneration in the right arm more than in the left. In the experiment of the rabbit suspended head downwards for a few minutes

daily, at the end of 140 days there was marked arterio-sclerosis of the vessels of the upper part of the body. Toxins, the third factor, were divided into endogenous and exogenous, and of these the former were the most important. These were the waste products, the clinkers or ashes, which irritated the endothelium and kept up a high tension. Too much food was eaten, as if we were stoking our engines to draw the Edinburgh express, and then put them in the station yard or to draw trucks. Quakers, temperate in drink, were not so in food, and were specially liable to arterio-sclerosis. The theories of intestinal intoxication, as promulgated by Metchnikoff, and earlier by Glisson, had led to the lactic acid and sour-milk treatment. Of the exogenous toxins, those of the specific fevers were the most important and could cause degeneration even in children. Alcohol, tea, coffee, and tobacco were other types of exogenous toxins. For those with tendencies towards arterio-sclerosis, the guiding motto was: "Nothing too much"—the life of the tortoise, not that of the hare.—*Med. Review of Reviews.*

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*Collier's* for February 12th devotes considerable space to a consideration of the way in which the consumer is robbed by the practice of putting food of all kinds into cold storage, to be sold when winter comes on. The subject of whether food deteriorates to such an extent as to make it unfit for human consumption has not, to our knowledge, been thoroughly worked out. The carnivora, in a wild state, do not eat some food till it has begun to decay; in fact, were it not for the odor then disengaged they would be unable to find it. Savages have a liking for putrefying meat, and, among civilized people, many connoisseurs do not care for game till it has become indeed gamey. There is a story to the effect that Chinese epicures have a fancy for eggs fifty or a hundred years old; if this is true, the liking for such eggs must be a cultivated fad of the rich, for after the first year or so the rest of a century can have little effect.

What poisonous effect, if any, long keeping in a low temperature may have upon the carcasses of domestic animals, butter, cheese, eggs, etc., is at least as important a problem as the price of food so kept, and *pace* the antivivisectionists, some interesting dietary experiments might be inaugurated in the physiological laboratories—on lapdogs, for instance, who are more accustomed to high-priced food than most young children upon whom otherwise the results of such experiments are most likely to fall.

It is not unlikely that cold storage affects different articles of diet differently. While, for example, prolonged chilling has superb



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results when applied to champagnes and other white wines, it is fatal to all the ruby vintages, which must be coddled near the grate. Similarly, we venture to suggest that cold storage might be excellent when applied to polar bear steaks, but bad for Delmonicos of hartebeest.—*N. Y. M. J.*

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Some time ago I received your sample Shaving Stick, and find it the very thing I have been looking for. Heretofore I was not able to shave myself on account of the condition of my face, but after using Resinol Medicated Shaving Stick, I find it is a pleasure to shave, and so much handier and more sanitary than the old-fashioned dust-receiving mug.—G. B. Claxon, D.D.S., Monterey, Kentucky.

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THE BURDEN OF THE SICK POOR SHOULD BE ASSUMED ENTIRELY BY THE COMMUNITY.—It is not fair to make an exception, and require physicians to bear any greater proportion of the burden of a community than other citizens. Custom alone is responsible for singling out one class and expecting its members to give special service of the most skilful and responsible character without reasonable recompense. The old idea that the hospital physician or surgeon derived adequate compensation from the experience acquired in experimenting or operating on poor patients—as a result of which greater success, more prestige and larger fees could be obtained in private practice—has been exploded. Hospital and dispensary training is immensely valuable, but the greater skill and knowledge obtained is as essential for raising hospital efficiency as private efficiency. The main consideration in the whole proposition is the patient. Through misfortune and the force of circumstances, he becomes sick, has no funds, and has no relatives or friends who can minister to his needs. He may be sorely afflicted, but under skilful treatment, good nursing, proper watching and feeding, nine times out of ten he can be restored more or less promptly to an earning status. In other words, the majority of the sick poor can be changed from a state of dependence to a state of independence—made into working, constructive members of society by hospital treatment. The gainer in the transaction is society, and society therefore should assume the entire responsibility. On no equitable basis can any man, just because he happens to be a physician, be expected to bear any extra share of the economic burden of the social dependent, and yet to require a doctor to administer treatment and give his time, knowledge and skill without reasonable remuneration, means just this and nothing else. From every angle it is unfair. The economic problems of physi-



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cians are no different from those of other men, with the exception that they are often larger and more complex. Doctor's families must be fed, clothed and properly educated, as well as those of men of other pursuits. The wherewithal is derived solely from the practice of medicine—the treatment of the sick. To reduce the doctor's income by requiring him to treat the dependents of his community without pay, is no more just than it would be to require the clothier, grocer, butcher, baker, or any other purveyor of necessities to supply any and every poor person with what he needs to keep him warm or from starving. The necessity for medical treatment is rarely more urgent or essential than that for food and protection from the elements. No, there exist no sentimental, ethical, economic or other reasons why a medical man should give his services—except in emergency—without a fair and reasonable remuneration. Any contention to the contrary is a mistake, or sophistry, pure and simple.

In order, therefore, to save the most unselfish and self-sacrificing class of men on earth from still further sacrifices, every thoughtful man should unite to bring about correction of the hospital-dispensary-clinic abuse. Organization on the basis previously outlined means first and foremost increasing the efficiency of our medical institutions, and second, conserving the best resources of the medical profession. More than anything else, however, it means an equitable utilization of the talents and skill of the whole medical profession, and ultimately, when every competent physician is officially part of a public health system, it is reasonable to expect an era of freedom from disease such as the world has never seen.—*Am. Med.*

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I have made frequent use of Resinol, and have found it an excellent salve in some very stubborn cases of skin diseases, where such a salve was indicated, and shall use it freely in the future—C. C. Jolliffe, M.D., New York City.

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APPENDICITIS.—L. G. Guerry, Columbus, S.C. (*Journal A. M. A.*, January 1), reports his experiences with a consecutive series of 545 cases of appendicitis operations, with only 2 deaths, these occurring in the first 100 patients operated on. This experience proves, in his opinion, that there is a factor in the surgical mortality that is not fully appreciated or provided against. In this total of 545 there were 240 chronic cases calling for an interval operation, with no deaths, as might have been expected. Of acute cases, 92 patients were operated on within 36 hours. His rule, so far as he has one, is, he says, to operate as soon as the diagnosis is

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**Alcoholism**

About ten years ago strong influence, by each of two opposing interests, was brought to bear to induce the Ontario Government to adopt medical treatment for inebriates in the penal institutions of the province by the use of secret or proprietary remedies. The matter was referred to the Prisoners' Aid Association of Canada, and Dr. Rosebrugh was commissioned to visit in Canada and the United States, interview specialists, and report upon the most scientific method of treatment of inebriety. Upon his return he reported strongly against the employment of secret remedies, and the Government declined to grant the request referred to. Since then Dr. Rosebrugh has made the treatment of inebriates a special study, and his practice is limited to this specialty.

Correspondence welcomed.

ADDRESS—

**A. M. ROSEBRUGH, M.D.**  
 Secretary of Ontario Society for the Reformation  
 of Inebriates  
 76 Prince Arthur Av., Toronto, Ont.



made, provided it can be made within 36 hours. After that the pathologic conditions are different; the third and fourth day cases are the ones that furnish the mortality statistics. Guerry holds that there is a definite tendency to localization in cases of appendicitis complicated with suppuration; there were 213 cases of this kind in the series; 68 of these were first seen on the third or fourth day of the disease. The pulse in most cases was 135, temperature 104° F., vomiting, distention, pinched features and some delirium were also present. None of these patients was operated on at once, but all were treated according to the Ochsner method, which he thinks is life-saving, at least in the practice of the ordinary surgeon and practitioner. Guerry emphasizes the fact that none of these patients was operated on immediately and none died. It must, he says, have been genuine insight in Ochsner to recognize that the chief factor in dissemination of the peritoneal infection is the vermicular movement of the small intestine, and that physiologic rest is the rational treatment of the diseased process, thus enabling Nature the chance she seeks to localize the disease. Gastric lavage, also, is rational, as it carries off the regurgitated contents of the small intestine and favors the attainment of physiologic rest of both organs. Guerry does not wish to be considered extreme, but he desires to emphasize the importance of utilizing and aiding the natural forces, and of using surgical discrimination and judgment in these cases. In almost all cases, he operated through the McBurney incision; when drainage is needed, he drains through a stab wound to one side. The rule is to remove the appendix, but there are exceptions to this rule. He believes it better to enter the peritoneal cavity by Ware's modification of McBurney's method, pack off the infected area and remove the diseased tissue. One of his patients who died had renal tuberculosis, and succumbed on the eighth day with post-operative anuria. The other fatal case was that of a child, who had been ill 10 days, and died of a continuation of the peritonitis.

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I wish to inform you of the very happy results obtained from the use of Resinol Ointment and Soap in my own family. An infant daughter of very delicate skin became so badly afflicted with an erythematous intertrigo that several portions of the body were very much inflamed. It seemed to resist all treatment until Resinol Ointment and Soap were used. The results were phenomenal; in a very few days the skin had regained its normality. I shall in the future prescribe the Soap for infant washing in my obstetrical practice, and the Ointment where a soothing and healing ointment is needed.—F. C. Bruce, M.D., Easthampton, Mass.



# Dominion Medical Monthly

## And Ontario Medical Journal

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### Original Articles

#### SOME OBSERVATIONS ON THE TREATMENT OF CHRONIC PURULENT OTITIS MEDIA.\*

BY CRAWFORD C. McCULLOUGH, M.D., FORT WILLIAM, ONTARIO.

Not so long since the modern perfected procedure of tympano-mastoid exenteration was thought to have solved all our difficulties in the attainment of a cure for a persistent purulent aural discharge. Many otologists were so enthusiastic as to hold the operation indicated in all cases in which an aural discharge had persisted in spite of careful conservative treatment for so short a time as nine months. For a time enthusiasm clouded the duty of the otologist towards the function of hearing, and so general became the practice of this operation that, in America at least, the pathological causes of an aural discharge seemed to have become obscured.

The operation seemed so logical, so radical, so perfect in detail, that as time went by the many failures to secure an absolute cure seemed almost incompatible. Investigation was thus stimulated, with the result that the extremes of radicalism now no longer obtain. These extremes were never reached in Europe as they were in America, and in this regard I was much impressed by a paper of Ruppert, an assistant in Prof. Bezold's clinic at Munich, which appeared in June of last year. In this clinic the extreme of conservative treatment of middle ear suppuration obtains, and Ruppert, in collecting his statistics, went outside the records of the clinic, taking instead the case records of Dr. Schiebe, of Munich, a former pupil of Bezold. These records extended over

\*Read at Canadian Medical Association, Winnipeg, August, 1909.

a period of 17 years. Bezold's treatment with boracic acid powder was the only treatment used. In his statistics, the author includes only such cases as had persisted for years, or such as had ceased for years, leaving a permanent opening in the membrana tympani, only to again set up a chronic discharge.

Even acute cases, in which the discharge lasted a year, were excluded. One thousand one hundred and eighteen cases were seen; 1,080 were uncomplicated, and of these, 592, or 55 per cent., had a central perforation, while the remainder involved either the membrana flaccida or the annulus tympanicus. The patients were treated every day until results were apparent, when the treatment was reduced to three times per week. Three hundred and ninety-five cases with central perforation were treated, and in only 24 cases, or 6.1 per cent., was a cure not effected, and 75.2 per cent. of all of these cures were effected within two months of instituting treatment. Three hundred and fifty-nine cases of perforation involving the annulus were treated. The formation of cholesteatomata was observed in 53.8 per cent. of the cases, involving the margo-tympanicus, and in 70.5 per cent. of the cases with perforation of Schrapnell's membrane. Now, of these 359 cases, only 10.6 per cent. remained uncured, and 64.6 per cent. of all cures took place within two months. Only seven cases came to operation.

In the face of the generally adopted procedure obtaining in America, these statistics were to me astounding.

The term *otitis media purulenta chronica* is a general one. It indicates nothing more than a persistent purulent discharge from the middle ear. The term itself gives no hint as to the underlying pathological cause of the persistent discharge of pus. To determine the actual pathological condition is an absolute necessity, in order to institute rational treatment.

Have we a chronic suppurative condition of the lining mucosa of the tympanum without involvement of the underlying bone? Have we ulceration of the mucosa with necrosis of the bony walls? Is there caries of one or more of the ossicles? Is the mastoid antrum involved? Are we dealing with a specific bone lesion, such as in tuberculosis or syphilis? Have we to do with a pressure necrosis from the presence of cholesteatomata?

All of these conditions present the same symptom—a chronic purulent aural discharge—and in instituting treatment, how often is the symptom substituted for the cause!

Much help is often obtained in arriving at a prognosis from the pathological findings upon examination of the discharge itself; this, however, is more true of the acute cases than of the chronic. It is generally conceded that of all pathogenic bacteria, the diplo-

coccus pneumoniae is the most prolific of the acute condition, the streptococcus coming second and the staphylococcus third. When the case becomes chronic most of the diplococci pneumoniae have been killed off, and we usually find a mixed infection of some sort. However, those in which the streptococcus predominates are known to be the most persistent.

The presence of bone dust in the discharge gives us definite information, as does also the presence of epidermal debris.

Unless, during the course of a chronic aural discharge, there are superinduced acute symptoms, the leucocyte count, total and differential, is of no definite value as an aid to diagnosis.

In a recent monograph, Kopetzky, of New York, distinguishes between a dangerous and a non-dangerous type of persistent purulent aural discharge. My own experience is in accord with this distinction. This classification will be denied by some. Potentially, any chronic aural discharge is dangerous, and calls for rigorous, well-directed treatment, but clinically there is a certain type of cases which, from the standpoint of intracranial involvement, are non-dangerous.

From this standpoint, then, those cases are non-dangerous in which the perforation in the tympanic membrane is central, be it ever so large, in which there is always some intervening drum membrane, be it ever so little, between the margin of the perforation and the annulus. Those cases in which the perforation is marginally located, particularly those in Schrapnell's membrane and those involving the annulus, are of the dangerous type, for these invariably indicate bone involvement, and so are inherently dangerous. In the former type the lesion is more often a chronic inflammation of the mucous membrane only, and is not therefore inherently dangerous; yet it may become dangerous if "an acute involvement of the mastoid is superimposed upon the chronic condition of the mucous membrane."

In instituting treatment, then, if we hold to this distinction between an intracranially dangerous and non-dangerous type, we are to a measure forewarned as to the first class at least, and we shall be careful to linger not too long in so-called conservative paths, should we not be attaining something definite towards a cure of the condition. But rather, forewarned being forearmed, we shall be truly conservative by instituting correct surgical procedures.

Charles J. Heath, of London, has for the past three years been consistently preaching a new doctrine, as to the etiology of a chronic aural suppuration, and he has attracted wide attention,

mostly because, taking his doctrine as a basis for a modified surgical procedure, he has obtained results which demand attention.

Baldly, a diseased mastoid antrum is at the bottom of every chronic aural suppuration, is the holding of Heath. He had arrived at this conclusion from his findings in 500 operations, in all of which he found diseased areas in the antrum. The diseased antrum being the nidus, the focal point of the suppuration, of what use is it, says Heath, to treat the effect, rather than the cause? In other words, there is no use in doing ossiculectomies, in curetting the tympanum, in cleansing and drying, for in none of these procedures do we reach the antrum, where the fundamental cause is situated. Rather, if we eradicate the disease in the antrum, the secondary disease of the tympanum will of itself get well.

I find the literature on this subject prior to Heath's enunciation of his theorem most meagre. It has been generally accepted that the antral disease is secondary to that of the tympanum, and always remains such. Cure the intratympanal disease and we remove the cause. We, as otologists, all believed this, and to many this reversal of pathology, so to speak, meets with very little favor. In some respects, is not the disfavor with which this theory is met rather due to an unwillingness to admit the possibilities of our firmly fixed ideas being open to error, and an unwillingness to investigate for ourselves as to the truth or the fallacy of our position.

I have been looking up my own case records of the past three years with a view to finding out in what percentage of radical operations undertaken for the cure of a chronic purulent otitis media I found the antrum diseased. I find that in all but two there was demonstrable diseases of this cavity. This was a series of 28 cases—a relatively small number, I admit, but is the finding not significant? In the two cases in which no mention is made of antral involvement, may there not have been such? For it must be remembered that no minute search was made for evidence of disease in this cavity, for I followed the traditional teachings, and always sought the cause in the tympanum.

It is an open question, this antrum versus tympanum, as a causal factor of persistent pus formation. Heath's theory has secured many adherents, and personally I believe his operation is here to stay. Its usefulness has been thoroughly proved by many surgeons of repute. What then of the pathological basis for this operation? Does it not merit our attention?

There are a few outstanding differences in the anatomy of the temporal bone of the infant and that of the adult that must be



remembered in the treatment of a chronic purulent process. At birth, and for some weeks after, there is usually no lumen to the external auditory canal, the cartilaginous walls being in apposition. There is no bony canal, simply the annulus, incomplete in its upper segment, the cartilaginous canal being attached directly to the squama. As ossification takes place from the annulus outward, to form the bony external canal, a dehiscence is often present in this wall. This dehiscence may persist to the fifth year of life or later.

The drum membrane in the infant forms a continuation of that portion of the squama which bends down and in, and to which the concha is attached. In this way the membrana tympani becomes the innermost portion of the roof of the external auditory canal. At two years of age the membrana tympani has assumed a more erect position, while at the fifth or sixth year of life it closely approaches to the adult position.

We must remember the dehiscence in the tegmen of the tympanum formed by the ununited petro-squamous suture. This suture closes usually at about the fifth or sixth month of ossification. The floor of the tympanum also commonly presents dehiscence, the jugular bulb itself frequently forming a portion of this wall.

The antrum is situated at birth above and slightly behind the tympanum, and is the only mastoid cell present. The position of the antrum changes, until at two years of age, it is more directly behind the tympanum, while at puberty it is fully developed. The mastoid cells develop from the antrum backward and downwards, and at five years of age we may have a typical adult mastoid process.

All of these points should be constantly kept in mind in the treatment of a persistent aural discharge occurring in infancy and young childhood. The ease with which infection of the contiguous and easily approached cranial cavity and its sinuses may take place is quite apparent; also the ease with which bacteria may be picked up by the lymphatics and carried to remote central organs, there setting up dangerous complications, should be borne in mind.

I am decidedly in favor of as little instrumentation as possible in the treatment of a chronic discharge in young children, and for apparent reasons. The most conservative treatment is demanded in these cases, and active surgical measures should be undertaken only when undeniably indicated.

Every surgeon is aware of the important rôle played by the naso-pharynx and its contiguous structures in the causation of



middle ear suppuration and its perpetuation. To an extent, I believe that surgical interference with these structures is being overdone. I believe that the practice of some in removing a normal third tonsil is pernicious. This piece of lymphoid tissue is there for a purpose—the warming and moistening of inspired air, and the lubrication of the mucous membrane of the pharyngeal vault. If not hypertrophied to the extent of causing symptoms, why should it be interfered with?

In the fossæ of Rosenmuller is found the key to the cause of many a persistent middle ear suppuration. F. P. Emmerson, of Boston,\* in an admirable paper published two years ago, most clearly presented the pathology of these fossæ, and its clinical bearing. Quite frequently there is present in one or both fossæ degenerated lymphoid tissue or adhesive bands, or both, which escapes detection with the mirror. It is found only on making a digital examination. Such tissue, in even minute amount, excites a sympathetic passive hyperemia in the tympano-pharyngeal tube, with resultant impairment of its function. I make it a practice, in adult cases presenting themselves with a chronic purulent otitis, to make a digital examination of both fossæ—it is easily and quickly done; if the finding be positive it is a simple matter to clean out the fossæ with the finger nail. I have had many apparently chronic cases clear up, and that quickly, after performing this simple act.

It is unnecessary to more than emphasize the importance of not overlooking such conditions as hypertrophy of the turbinates (particularly posteriorly), the presence of earies of the ethmoid cells with the resultant polypoid masses, nasal stenosis from any cause, an atrophic condition anywhere in the naso-pharyngeal tract, or a hypertrophy of any portion of the lymphatic ring.

It is necessary to keep in mind the chief anatomical differences in the position of the tympano-pharyngeal tube in the young and in the adult. It is sufficient here to recall that at birth this tube is short, straight, inclining slightly downwards from the naso-pharynx to reach the tympanum. The naso-pharyngeal orifice is on a level with, or slightly below, the floor of the nose, and the bony portion of the canal is exceedingly short. As development takes place the position of the canal changes. At two years of age we find it assuming the adult position, while at puberty this position and shape has been attained. The naso-pharyngeal orifice is now above the floor of the nose, and the tube follows an ascend-

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\*Other surgeons who have called attention to the clinical bearing of the fossæ of Rosenmuller are: 1. Brunk Birmingham, Ala., 1906. 2. J. W. Jervey, Greenville, S.C., 1906. 3. F. R. Packhard, Philadelphia, Pa., 1909.

ing course to the junction of the cartilaginous with the bony portion, where it forms a constriction, and bending slightly downwards proceeds to the tympanum.

The shortness of the tube, the position of its naso-pharyngeal aperture, its horizontal and straight course, and its relatively wide lumen make the path for infection of the infant tympanum an easy one. This simply emphasizes the importance of recognizing pathological conditions in the nose and throat, and of the care which should be exercised in the use of medicated solutions in the case of infants and young children. Speak of it gently—but recently a case came under my notice, that of a young child with chronic purulent otitis media, and a chronic case of “snuffles,” in which the nasal douche was prescribed for use night and morning!

What constitutes conservative treatment of an otitis media purulenta chronica? To my mind, conservatism is a broad rather than a narrow term, and that treatment is conservative which rationally follows upon a positive diagnosis of the causal factor, whether it be non-surgical, surgical, or a combination of both. Conservatism, always keeping in mind the economic value of the function of hearing, and the value of the human life, aims to accomplish a cure by clearly indicated rational and logical means, and that consistent with safety, by the least possible interference with Nature’s processes of repair.

In some cases non-surgical measures constitute conservative treatment; on the other hand, so radical a procedure as tympanomastoid exenteration is equally conservative. It is all a matter of diagnosis and of ability to recognize Nature’s signals of distress.

Given any case of chronic purulent otitis media, in which no alarming or dangerous symptoms are present, I believe in first instituting the cleansing and drying and boracic powder insufflations. While carefully carrying out these measures once daily, the surgeon has time and opportunity to systematically arrive at a positive diagnosis of the underlying pathological cause. He will also have gained accurate and most valuable information as to the exact condition which he has to combat, as to its extent, its ravages, and its dangers, from an intra-cranial standpoint. This desideratum having been thus attained, he is now prepared to continue his primary treatment, or to alter or to abandon it, as the case may require.

Taking it for granted that any abnormality in the throat or nose has been corrected, he now has to deal exclusively with the tympanic space and its adnexa.

To revert to some of the pathological conditions found in

chronic aural discharge: If we find a simple chronic suppurative condition of the lining mucosa of the tympanum without involvement of the underlying bony walls, we have a condition that does not call for surgical interference. The simple cleansing and drying treatment with boracic insufflations is here indicated. In all such cases I follow Bezold's method almost exclusively, and with excellent results. In ulceration of the mucosa, and necrosis of the underlying bony walls, we must be guided by the situation of the active process. Is it in the hypo, or in the epi-tympanum, or in the tympanic cavity proper? Easily accessible areas should be gently eurented and the boracic powder treatment carried out faithfully and patiently. If success after a reasonable time does not follow, we must entertain the more radical surgical procedures. Under this heading are included Ossiculectomy, the Stacke operation, the modified radical or so-called Heath, and the typical Zaufal radical operation. In cases of one or more of the ossicles which resist the simple conservative measures, either ossiculectomy or the Heath operation is indicated. With involvement of the mastoid antrum, simple mastoidectomy, the modified radical, or the typical radical operation must be decided upon, only of course after patiently following up the Bezold treatment without success.

In specific bone lesions, such as in syphilis or tuberculosis, appropriate specific treatment must be at once instituted, and here we must not be too sanguine of our prognosis, for even after most skilfully performed and thorough radical measures have been carried out, the after treatment may, *de causa*, be most protracted and perhaps, to an extent, futile. In cholesteatoma formation, I have in a few cases secured an apparent cure by the simpler means, but in the majority of cases, unless results are soon apparent in following out the simpler measures, the radical operation is called for.

A consideration of the indications for these several surgical measures is now in order:

Ossiculectomy, a minor operation in itself, has been advocated for the relief of numerous conditions. It has been much practised, and owing to the comparative simplicity of the technique of its performance a great deal of poor judgment has been used as regards its indications. Ossiculectomy undoubtedly has its place in otologic surgery, but in the light of later-day information and experience, I believe its field is most limited. In the past, the value of retaining whatever hearing that remains in the affected ear has been too heavily discounted, and too great stress has been placed upon the danger of invasion of the cranial cavity through

the tegmen tympani. If there be still useful hearing in the affected ear this operation should not be lightly undertaken, for post-operative hearing will be surely reduced. That its actual value in most of the conditions in which it was held to be indicated is open to question is quite apparent from the modified opinions expressed by surgeons of repute, both in Europe and in America. In America some of our foremost otologists have altogether discarded the operation, some in favor of the complete radical operation basing their reasons for so doing upon the clinical findings, viz., that the condition for the relief of which ossiculectomy was undertaken was invariably found to be more extensive than was pre-judged. Others, more particularly since Heath propounded his theory as to the integral part played by the mastoid antrum in chronic middle ear discharge, have discarded it in favor of the modified radical or so-called Heath operation.

There are still many surgeons who hold this operation in high regard; these hold it absolutely indicated in caries of one or more ossicles, or in caries of the walls of the epitympanum, in cases of pus retention under pressure in the epitympanum, in such cases in which there is persistent formation of cholesteatomatous masses in the attic, with consequent frequent acute exacerbations of the purulent process, and some go so far as to recommend it in every case of obstinate otitis media purulenta, in which a cessation is not obtained through simple measures. In the latter instance it is always a satisfactory preliminary to the radical operation. It has been the experience of many that in performing this simple operation they have often been able to avoid the major operation of tympano-mastoid exenteration.

Those who have accepted Heath's enunciation in its entirety hold that his modification of the radical operation is that indicated in every case in which either ossiculectomy or the complete radical operation has heretofore been held to be indicated. There are many surgeons again who have accepted this modified operation to a degree, viz., that it at least takes the place of ossiculectomy in otologic surgery. It is a less severe operation than the complete radical; it is less dangerous to the facial nerve, and it at least retains to the patient what hearing he already possesses, and often, in point of fact, improves his hearing. Many surgeons have had most brilliant results with this operative procedure, in many cases a complete regeneration of an almost totally destroyed membrana-tympani having been secured.

To exenterate the mastoid antrum and mastoid cells and to leave untouched a tympanic space which is markedly diseased seems like



poor surgery. Yet, what shall we do with the irrefutable statistics of many surgeons of note who are doing this very thing? They are obtaining absolute cessation of all underlying pathological processes, with in most cases an improvement in the function of hearing.

To my mind this operation cannot completely supplant the radical, but it should be performed whenever possible. I have practically abandoned ossiculectomy except in cases where the hearing is so diminished as to be of little actual value to the patient. Even then it has been my experience that I have, as a rule, had to later on do the radical operation.

Statistics of the percentage of cures after the complete radical operation are constantly coming to hand. These figures vary from 65% to 90%; probably 80% would be a good average. This is far from the ideal, but it is satisfactory. The radical operation is decidedly a major operation, and should never be lightly undertaken.

The general consensus of opinion has been that this operation is indicated in every case of chronic aural discharge in which, after long intra-tympanic treatment by simple means, with accessory minor operations, including curettage of the tympanic walls, removal of granulations by snare, ossiculectomy, etc., there still remains more or less of a purulent discharge. Also, in those cases of chronic purulency in which an acute mastoiditis is superinduced; in persistent cholesteatomata formation which does not yield in spite of ossiculectomy and faithful cleansing treatment; in facial nerve paralysis; in chronic suppuration about the eustachian orifice; or in such cases in the course of which sudden alarming or dangerous symptoms develop, pointing to intracranial sinus or labyrinthine involvement.

Tympano-mastoid exenteration does not take into account to any appreciable extent the function of hearing.

In those cases which present symptoms of intracranial sinus or labyrinthine involvement this is decidedly the operation of choice. There is no place for any other than the most radical measure under these conditions.

In the other contingency which I have just mentioned, in which the complete radical was heretofore held to be indicated, the modified or Heath operation should be at least entertained, and I am coming to believe, more frequently performed.

The after-treatment, whatever the operation selected, is most important; more particularly in those cases in which the complete radical is done, and in which it is found impossible to safely remove



every vestige of diseased tissue, such, for instance, as occurs about the niche of the stapes, along the course of an eroded facial canal, or over an eroded hypotympanic floor. In such contingencies as these the radical operation becomes to an extent simply a preliminary step to effectual after-treatment. It opens the way for complete inspection of the diseased areas and for the carrying out of rational local treatment.

Where we have to deal with tubercular or luetic bone lesions, the after-treatment frequently becomes the main treatment, calling for a continuance of general remedies, local successive light curettements of diseased areas and local antiseptic applications.

Quite recently I discharged, cured, a young lad upon whom the radical operation was carefully and thoroughly performed fifteen months previous. In this case the niche of the stapes and a few cells about the mouth of the eustachian orifice were the sites of the diseased areas which were so persistent. The radical operation in this case gave free access to these parts for the carrying out of local measures, and after long and persistent effort, not to say after many discouragements, complete epidermization was secured.

Within the past six weeks a case upon which I did the radical operation nearly three years since presented himself to me with a fluctuating swelling over the centre of the post aural scar. Examination per external canal revealed a similar condition on the posterior wall of the exenterated mastoid process. The fluctuating tumor (post aural) proved to be a broken-down and purulent mastoid gland, while the internal tumor contained a sero-sanguineous exudate, but no pus. The external condition after evacuation soon healed. The internal condition required the removal of a considerable area of epidermis, and vigorous curettement of the sac followed by light tamponading of the epidermis against the posterior wall of the exenterated cavity. The cavity was again completely epidermized in about three weeks. In this case a diseased mastoid cell had most probably been overlooked at the time of operation.

To secure proper epidermization tight tamponading is a mistake. Better results are obtained through light pressure, where some pressure is required, and the use of a mixture of aristol and boracic powders in equal parts as a dusting powder. It is a mistake to exclude the air from the cavity by tightly closing the external canal with packing. Rather, either leave the canal unoccluded or place in its mouth a small amount of loose sterile absorbent cotton, just sufficient to exclude dust, but not the air.

In the after-treatment wet cleansing should be avoided. Cleans-

ing with dry pledgets of sterile cotton is preferable. Exuberant granulations are easily kept under control by means of silver nitrate solution of 10% to 20% strength.

Otologists are not engaged in a finite science. Much has been accomplished in the past twenty-five years; much is being accomplished at the very present; and he would be a prophet who could foretell to what perfection otology may attain in the future.

Otologists are enthusiasts in their field of work. This is only a natural sequence; and the true aural surgeon, working hand in hand with the pathologist, is gradually and quite surely conquering many difficulties heretofore thought unconquerable.

101 Dominion Bank Building.

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## PRAIRIE DIETETICS IN RELATION TO HEALTH AND DISEASE.\*

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By H. M. SPEECHLY, M.R.C.S. (ENG.), L.R.C.P. (LOND.).  
PILOT MOUND, MAN.

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As the health of the dwellers on our Western prairies must depend largely on the dietary and methods of diet by which they feed themselves and their children, the problem, what to eat and what to avoid, should bulk largely not only in the preservation of health, but also in the treatment of disease. It is not too much to claim, then, that medical men should pay close attention to this matter, even when handling surgical cases. In fact, it may be laid down that there are few cases, either surgical or medical, in which dietary management can be neglected. It is true that the general public dislike interference with their accustomed diet, but I believe that the unpopularity of dietary control arises out of a want of appreciation of its importance by large numbers of our profession, and therefore of our patients. In such matters, Professor Wm. Osler rightly contended the other day that the medical profession is not the servant of public opinion, but the leader. But how many students of medicine receive a course of instruction in Dietetics? Hence it comes to pass that the question of diet is so often slurred by the profession, and too much dependence is placed upon drugs and surgical methods. Let it not be thought, however,

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that I am advocating the other extreme of neglecting the medical and surgical arms of precision with which modern science is equipping us, because I am in the habit of using perhaps thirty different drugs as aids to methodical dieting in my own practice on the prairie. The need is considerable, owing to the general average ignorance of good and bad articles of diet among the public, and owing to the neglect of certain specialists from the cities to keep in mind the fact that their own special line is governed materially by the all-pervading influence of digestion on disease. Hence it is that sometimes patients who come to the West with "tubercular disease of the throat" recover rapidly under appropriate dietetic management. It might be well, also, here to state that there are no diseases of Anglo-Saxons peculiar to Western Canada.

Let us first consider briefly what is the average prairie dietary, dividing it into two classes: (1) The Infantile, (2) the Adult.

(1) What do we mean by the Infantile dietary? It should, of course, extend over a period of two years, at least, from birth; but as a matter of practice on the prairies, the first year from birth amply covers this period. It might be supposed that this epoch could be lightly dismissed by saying that of course prairie mothers suckle their infants during that time. Most of them would do so gladly; some do reluctantly; other few—not many—are too lazy or selfish to bother with it; while all too many are unable to fulfil this function completely. Defective nipples sometimes compel a mother to stop nursing; but most often the necessity for a nursing mother to do her own work, including the harder tasks of scrubbing, washing and ironing, prevents her from nursing her child even for six months, either because her supply of milk declines to vanishing point, or because its quality is spoiled. Too often, then, the babe must be fed from the bottle, or more rarely by the spoon. Gastro-intestinal troubles follow, especially as those wise persons, whose name is legion, invariably recommend the milk "from one cow," diluted in too strong proportion, and mingled with some biscuit preparation, such as cream crackers or arrowroot biscuits. Hereditary ignorance, permitted largely by the neglect of the profession to rise above the level of "old women," is responsible for this. The usual train of vomiting, diarrhea, or constipation, is the common effect of this dietary, as well as chronic intestinal conditions which predispose to tubercular and other lung complaints. But occasionally true rickets follows and puzzles the uninitiated. It is worth noting, however, that the mingling of arrowroot biscuits with the bottle contents does occasionally im-

prove the infant's capacity to digest its milk. Finally, while well within this epoch, many infants easily slide from this biscuit dietary, aided and abetted by the male parent, into "taking everything that we do," from pork to raw carrots!

(2) From the foregoing period the Adult dietary commences, and continues until the end of life, often permanently closed by dietary mistakes, or until disease or some medical man compels the individual to halt and make a change. Let me urge that no medical man is fully equipped against disease until he grasps the common-sense principles of diet. Faddiness is sheer nonsense, and as La Rochefoucauld says (Maxim 285), "*Preserving health by too strict a regimen is a wearisome malady.*" In dietetics, we require common-sense, and the use, not of cast-iron methods, but of an elastic adaptation of principles to each individual case. We must appeal to the common-sense of the people, for, as Dr. Samuel Johnson once said, "*A man seldom thinks with more earnestness of anything than he does of his dinner.*" Moreover, moderation in the use of most articles of diet is the governing principle, not prohibition, though in some cases temporary or permanent prohibition cannot be avoided.

Let us, however, consider in detail the average prairie dietary. The principal nitrogenous foods are pork, beef, poultry, fish, game, and mutton, with eggs, milk and bread, while carbohydrates are represented by porridge, scones, biscuits, the familiar cream-cracker, dry cereals and wheat products, pies, all kinds of cakes, all sweet preserves, syrups (both plain and maple syrup), corn sauce, milk puddings, potatoes, sweet corn, butter beans, beets, turnips, carrots, onions, cucumbers, cabbage, cauliflower and pickles. The hydro-carbons in butter, cream, pork and eggs are much in use: and in their seasons quite considerable quantities of oysters are consumed, and fresh fruits, such as apples, tomatoes, pears, peaches, cherries, apricots, strawberries, raspberries, blueberries, saskatoons, cranberries and currants. In addition, lemons, oranges and bananas are eaten in large quantities all the year round. It is, then, no exaggeration to state that, as the Western farmer grows more and more prosperous, his board may be said to groan with an abundance of good things; and so, too, quite often do those groan who partake too well thereof and not wisely. Yet, if guided by a judicious choice, one may eat there, and exclaim with Dean Swift, "*Lord, madame, I have fed like a farmer; I shall grow as fat as a porpoise!*"

It is worth noting here that the influence of tradition is well-marked, so well-marked sometimes as to make fetishes of certain



articles of diet. For instance, in the Scotch settlements the use of porridge has conferred upon the eating of this product a sanctity almost equivalent to that of a sacred rite. In the English settlements, the ancient custom of eating a big hydro-carbonaceous breakfast of pork foods and eggs, washed down with tea or coffee, is as the law of the Medes and Persians, which cannot be broken. And again, the down-East influence, touched perhaps with a Yankee blend, is evidenced by the use of apples and maple syrup as being "healthy" at all times and places, or by the use of dry cereals and fruit at breakfast, and at other meals, of corn sauce, pumpkin pie and Johnny-cake, all to be taken with the rapidity of a threshing machine in action! Three meals a day is perhaps the most common practice, and doubtless is Scotch in origin, too.

Further, in dealing with this subject it is necessary to emphasize the important influence of the water supply of our Western prairies on the health of our people. In view of the fact that, in taking a farm or homestead, the water supply is often the last thing of which account is taken, it cannot be pointed out too strongly that many wells are so strongly impregnated with the alkaline earths as to coat heavily the interior of kettles, and to cause severe diarrhea to newcomers. It stands to reason, therefore, that this same water must be a source of chronic irritation to certain digestions, and will complicate the dietetic management of disease. It is necessary, too, to warn our people against the impropriety of using any well for human beings that is liable to the surface soakage from stables or privies, a matter quite too often disregarded.

Here it might be asked, "Are there no errors in preparing food and in habits of eating?" Without dwelling too long on these matters it is easy to point out that, while the average standard of cooking is excellent in the matter of bread-making and the cooking of vegetables, fruits, puddings and sweet things, the practice of frying meats, especially pork, until the meat fibre is hard and tough practically destroys the nutritive value of meat, and often causes indigestion or constipation. The making of tea is often defective, also—an important error, because enormous quantities of tea, both green and black, are consumed in the West. The error lies both in making the tea too strong, and in allowing it to stand a long time on a hot stove, thus spoiling the nature of this fluid, so excellent when properly made. But far more serious perhaps is the great error in habit of bolting food without any pretence at mastication, which is all too common amongst men and young people, if less frequent among womankind. Added to this is the equally prevalent bad habit of eating and drinking simul-



taneously. It is noteworthy that a man will allow his horses two hours for food and rest, but takes himself not much more than two minutes to bolt his food and bolt out again to work. What a waste of internal force there will be in getting rid of the food-lumps! Is not a man of more value than a horse?

Briefly, now, let us touch on the relation of dietetics to the three large classes of disease covered by such terms as Goitre, the Uric Acid diathesis, and Gastro-intestinal disease. Is it too much to claim that auto-intoxication is really at the bottom of *all three*? Incontestably it is as regards the last two; but I believe that chronic auto-intoxication is essential to the production of goitre, and that without it goitre is impossible, or at least improbable. Whatever influence water of a tainted sort may have in these cases, are they not all the subjects of chronic auto-intoxication, whether they arise in Switzerland, Derbyshire, or Manitoba? I may say this, that goitre is common amongst young and old women, but only occasional amongst men in Manitoba, and that some dozens of cases occur in my own district. My observation is that all cases of goitre suffer from auto-intoxication, and that the early cases improve permanently when the intestinal canal is swept and garnished and dietary precautions are taken.

Finally, as bearing more particularly on the uric acid diathesis, so common in the West, and on gastro-intestinal disorders, let me urge that our patients should be warned *in detail* against certain articles of diet. For instance, after the growing age, porridge, even of the best Scotch or Canadian oatmeal, may be positively poisonous, and often is, especially in hot weather. In like manner, the use of sugars, especially maple syrup, is far too frequent amongst adults, who imagine that they can do what they used to do in the good old "sugar-time" down in old Ontario. Eczema and "muscular rheumatism" are common results of over-doses of maple sugar. Uncooked apples, too, produce more auto-intoxication in the winter than any other article of diet among patients of all ages, because of the hereditary notion which holds that apples are "healthy" so long as you like to eat them. Are these fruits which are picked on the unripe side of the same value as fruits eaten when ripe on the tree? I think not. Likewise, while orange juice is excellent for human beings, we ought to advise our patients against swallowing the pulp. In many digestive canals the seeds, skins, or stones of currants, raisins, raspberries, saskatoons, blue-berries and cranberries will block the way by forming dense fermenting masses of a most dangerous character.

I am aware that some people think that these dietary doctrines

are crazy; but they suffer from ignorance, and need to be educated into seeing that in what they call rheumatism and in what is called appendicitis it often happens that it is "the little foxes which spoil the grapes." To the sceptical brethren, I would say, "Experto crede."

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## **"MEDICAL THOUGHTS, FACTS, FADS, ETC.," VERSUS AFTERTHOUGHTS, VISIONS AND ACHIEVEMENTS.**

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BY ONE WHO DOESN'T KNOW IT ALL.

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Not unfrequently have we been interested in the contributions from the pen of the Sage of Perth, which ever and anon have appeared in Canadian medical literature. His observations, as a rule, are taken at the correct angle, his conclusions reasonable, and his criticisms just; but when he attempts to deal with the modern thought movement in therapeutics, when he endeavors to measure the twentieth century psychic horizon by the physical measure of the medical education of the nineteenth century, he confesses the limitations of materialistic tendencies, all too common in our profession.

The writer is no believer in the current orthodoxy, nor does he hold any briefs for the multitudinous pathies of the day, but it does seem to him that human nature abhors a vacuum, even in therapeutics, and that there is a "demand for Osteopathy, Christian Science, Chiropractists, Vitopaths, or Emmmanuel Movement," a demand that will eventually compel a fuller recognition and a keener appreciation of scientific massage, psychic force and the restful and uplifting sentiments of Christianity. Time was when the physician and the priest were one; that was when the physician knew little and the priest knew less, and in that dual capacity ministered in a primitive manner to the dual nature. As time wore on, both departments ran to seed—the physician to materialism and the priest to superstition—leaving in the course of the mental evolution of the race an ever-widening psychological vacuum, and into this plunged headlong Mrs. Eddy, with that incongruous mixture of fact and fancy—Christian Science. This came as a protest, as all other quackery comes—a protest against a material hell and eternal damnation; a protest against attributing to the Creator traits less than that of a gentleman; a protest against the sophisms of the "student," who opens the skull, and, finding no blue flame, solves the riddle of the universe by stating that he sees no soul there; a protest against the superficial observers and shallow critics, who find no value, neither comfort nor

support, in the exercise of communion with the Infinite, nor in faith in the everlasting arms.

Is it not a fact in the history of medicine that many of our most useful measures were practically forced upon us by quacks? Not that they were first to evolve the principles, but those outside the regular profession were frequently in advance in the general application of the agencies. What of Hydropathy? Go back thirty years. Was it not tabooed by the regular medical profession long after the public had learned something of its value from those who grew wealthy by the sprays, vapors and packs of the hydros? Did not electricity share the same experience? A Faradic coil ministered to the neurotic crowd as the marvellous stock-in-trade of men who reaped many shekels and much wealth many moons before the orthodox graduate purchased a "Beard and Rockwell," and related his experience of dilating urethral strictures by a Faradic current conveyed by a soft rubber catheter? What was true of water and electricity is to-day true of what we call psychopathy. Let us learn by what has been, and adapt ourselves to the growing demand for an intelligent, well-balanced profession, progressive and efficient. This we have not, or such cults as Dr. Sprague hesitates not to condemn would not be meeting with the success that is to-day their portion. Christian Science, with its absurdities of expression, its trail of blood and murder, is developing a higher type of spiritual character, a healthier mentality and a higher standard of physical health and purity than is found among the average orthodox church members. I speak from fifteen years' close observation. Osteopathy is teaching us the value of exercise and of physical development; while the Emmanuel Movement, which Dr. David Starr Jordan said unfortunately went off at half-cock, is giving us again the principles of the teachings of the Reformer of Galilee. Read our own Osler's address on the "Treatment of Diseases," delivered before the Ontario Medical Association last June, and see where this medical giant stands. Here are no words of cavil, but the straightforward statement of a man among men. Listen, ye inhabitants of Perth, and be not deaf, ye materialistic medicos: "In all ages and in all climes, the prayer of faith has saved a certain number of the sick," and a greater than Osler said something remarkably like it not a few years ago in a little country bordering upon the Mediterranean.

Let quackery come. It is an indication of our shortcomings, the index of our incapacity, the suggester of our requirements. Opposing it but strengthens it; the wise man learns his lesson, applies the principles, and in the end triumphs. And this is possible, even in Perth.

ERNEST A. HALL, *Victoria, B.C.*

## Medicine

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GRAHAM CHAMBERS, R. J. DWYER, GOLDWIN HOWLAND, GEO. W. ROSS, WM. D. YOUNG.

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### **Treatment of Carcinoma with the Body Fluids of a Recovered Case.** EUGENE HODENPYL, M.D., *Medical Record*.

About four years ago the writer became interested in a case of carcinoma of the breast in a woman then 37 years of age. The clinical history and the morphology of the tumor were typical of a rapidly growing malignant cancer. In spite of radical operation, multiple recurrences appeared in the neck and in the primary scar. After the thorough removal of these, secondary growths appeared which were morphologically typical of rapidly growing carcinoma. Still other tumors developed in the neck and breast, which, owing to local complications and the debilitated condition of the patient, were not removed. Later, large tumors developed in the liver, which nearly filled the abdominal cavity, followed by the occurrence of excessive chyloform ascites. The prognosis was unqualifiedly bad, and the patient's death seemed imminent.

But, nevertheless, the tumors in the neck and breast gradually dwindled and disappeared. The abdominal tumors gradually grew smaller and became imperceptible, while the liver became smoother and smaller. At length, about four years after the first operation, the liver is approximately normal in size and position. With the exception of the scars and decreasing emaciation, and extreme chyloform ascites, requiring frequent tapping, there is now no indication of the original disorder.

In his deliberations upon this rare case of recovery from extensive carcinoma, with residual chyloform ascites, the writer was led to weigh the possibility, so often discussed, especially in connection with experimental tumors in mice, of the development by the patient of some sort of antibody inimical to the progressive growth and persistence of the tumor cells. The alternative hypothesis, which seemed plausible, was that in the processes of tumor-tissue formation in the abdomen, some physical or physiological disturbance of organic or internal secretions might have occurred, leading to the accumulation or formation of substances antagonistic to tumor cell growth or existence.



The ascitic fluid having been freely placed at the writer's disposal to test these theoretical conceptions, a series of mice, which had developed tumors after the implanting of some of the well-known strains of mouse cancer cells, were injected with varying amounts of the ascitic fluid. These injections were made near the tumors, into the tumors, and into the body at large. The effect of these injections, in brief, was to lead to marked necrosis of the tumors, to a noteworthy diminution in their size, or to their complete disappearance.

After experimental tests of the harmlessness of the fluid, first in animals, then in human beings, injections of the fluid in cases of carcinoma of various types in man, were undertaken. These injections have been made in small quantities, near or directly into the tumors, or in large quantities into the veins. The general effects of these injections in man have been nearly uniformly to induce a temporary local redness, tenderness, and swelling about the tumors, which soon subside. Then occur softening and necrosis of the tumor tissue, which is now absorbed or discharged externally, with the subsequent formation of more or less connective tissue. In all cases the tumors have grown smaller; in some they have disappeared altogether. In no instance has any tissue in the body, other than the tumor, shown the least reaction after the injections, nor have any systemic effects been manifest, even after large venous infusions.

The greater number of the forty-seven cases thus far treated were distinctly unfavorable, many of them hopeless and incurable. Many of the cases are still under observation by the writer or by other physicians in and out of New York.

The records of the cases treated, the technique employed, and the results obtained will be placed at the service of the medical profession as soon as time permits, together with the results of various obvious control experiments which are now in hand under the direction or with the concurrence of the writer. In the meantime this preliminary communication is made, first, in order that the attention of the profession may be called to the possible significance of body fluids from the rare cases of those who have recovered or are recovering from carcinoma; second, to correct the false impressions which may have been conveyed by the premature and unauthorized news items in the daily press; and, finally, to secure an opportunity to remind physicians practically interested in this study, that the urgency for this treatment, of hopeless, inoperable cases, is hardly just, either to these patients themselves or to a



method from which it is hoped to secure new resources and new light through deliberate and reasonable tests.

It is not my purpose to announce at this time a new cure for cancer, but to call attention to the remarkable, selective necrotizing effects upon carcinoma cells of the ascitic fluid from a recovered case of carcinoma, wherever in the body of the patient this fluid is introduced. The nature and significance and the practical importance of the substances contained in this fluid, and the ultimate value of this method of treatment of carcinoma are to be finally determined only by a continuance and completion of the various correlated series of investigations, chemical and biological, now under way, or by such tests as other observers may undertake.

## Obstetrics

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CHAS. J. C. O. HASTINGS, ARTHUR C. HENDRICK.

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**The Management of Normal Labor.** By DAVID J. EVANS, M.D.  
*Montreal Medical Journal*, Sept., 1909.

Ordinarily, normal labor means spontaneous delivery of a living child, which has presented in a vertex position, with the occiput rotating anteriorly. This occurs in over 90 per cent. of all full-term labours. To ensure this natural delivery, it is important that the patient be under the direct supervision of her medical attendant from early pregnancy. The writer wisely states that the advent of the baby should be in the nature of a visit, and not a visitation. It is a perfectly natural event, and should not be ushered in with a great fuss and much expense to the parents.

Common sense and plain directions are all that is required with an intelligent patient.

As regards the requirements for the baby, written directions are given. Employ a nurse with the true surgical instinct and quiet manner.

As to the physician's obstetric outfit, it usually bears an inverse proportion of instruments to the skill of the owner.

The pelvimeter is an important instrument, as often it contraindicates the early application of the forceps, an instrument often abused.

As to the labor room—choose the most cheerful and quiet available, and have plenty of clean linen, towels, sheets, etc. Have the room house-cleaned a few days previously, if possible.

The bed should be so placed as to avoid draughts, and the mattress or springs supported, if they sag too much. Another point the writer warns against, and that is the very pernicious habit of using old newspapers as pads under the sheets. Better use pads made of cotton-batting one yard square and 3 inches thick. They are sterilized by steaming or baking for half an hour.

Preparation of Patient for Labor: If possible, let them have a bath 24 hours before, and an enema after the labor sets in. The vulva and thighs should be washed with soap and hot water, the hair trimmed or clipped, and an aseptic pad applied. A clean night-

gown, stockings and chemise are put on. While up, a wrapper is worn.

The preliminary vaginal douche is rightly strongly condemned. The writer urges careful measurements of the pelvic diameters pre-partum. Then the general condition of the mother, and the position and character of the fetal head, and the kind and duration of the labor pains are observed by abdominal examination alone. The writer considers a vaginal examination quite unnecessary in the majority of cases, and suggests in its stead rectal examination to ascertain the condition of the cervix.

When pelvimetry shows a moderately contracted pelvis, considerable delay should be allowed, at least four hours of second-stage pains before interference, as many of these cases (75%, Williams, of Baltimore) deliver spontaneously.

As to the application of the forceps, the writer waits until the os is completely dilated, either naturally or artificially, before applying them.

For the restlessness in the first stage, Chloral, gr. 15, q. 4 hrs., is advised, and liquid diet, such as a cup of hot, freshly-made tea, is allowed.

When the membranes fail to rupture after the cervix is dilated, the writer uses a large safety-pin to puncture them.

Preparations for delivery: The sutures, instruments, etc., are now put conveniently at hand.

The patient is placed in the left lateral position, with hips resting on a Kelly-pad, covered with a sterile towel, and suitable receptacle at the bedside. The carpet or floor may be protected by an old rug or layers of paper that may be destroyed.

The vulva is washed with 1/2000 bichloride, or lysol, swabbing from pubes to anus.

The writer advocates wearing rubber gloves of moderately heavy red rubber, instead of the very thin surgical glove.

Chloroform is used in every case, the mask being applied early at the onset of the pains, and just at the moment of birth, and does not fear any tendency to post-partum hemorrhage from its use.

Protection of the perineum: Laceration of the perineum may occur in some cases in spite of the most skilful treatment. It may be avoided largely by sustaining *complete* flexion of the child's head, and not getting in a hurry.

The writer considers that support to the perineum by the physician's hand is a mistake. With this we cannot agree. Proper

support of the perineum assists in retaining flexion of the head, and also gives one complete control of the advance.

If the perineum does not distend readily the writer recommends a medium episiotomy with blunt-pointed scissors. With this we do not agree. If a simple nick in the median line will allow the head to escape so readily as the writer states, then there are other means of getting this extra space.

First, the writer has failed to emphasize the importance of having and keeping the patient's bladder well emptied, by catheter if necessary, during the last position of the second stage. This is important, both in order to prevent obstruction and to protect the vesical tissues. Again, we have found that in many cases the "Walcher position" aids very materially. The patient is kept in this position for a short time. The head advances easier, and the perineum is relaxed.

Immediately the head is born the eyes are wiped, the throat cleansed and the neck examined for encircling cord. The shoulders are delivered by carrying the head well up over the pubis. We think it is important to support the perineum still, or often to assist by traction on the shoulder.

The writer ties the cord when convenient to attend to it, whether pulsating or not. We think it a good rule to wait until pulsation has ceased, unless there are counter-indications.

Repair of Lacerations: The writer sutures all tears at once, before waiting for the expulsion of the placenta, using silk-worm gut and a strong needle-holder, having the buttocks supported on a bed-pan. The sutures must not be tied too tightly.

Management of the third stage: "Watch and wait" is the wise rule. The separation of the placenta is shown by three signs:

1. Fundus uteri rises to the level of the umbilicus.

2. Winkel's sign: Pressure on belly just above the pubis; if placenta is still in the uterus the cord will be drawn into the vulva; otherwise, it is extruded. Again, compression of fundus uteri causes a wave of pulsation in the cord.

When the placenta is detached, slight pressure on the fundus is sufficient to expel it.

After half an hour Crede's method is employed, just after a uterine contraction has reached its acme. Pressure during other times may tend towards inversion. Also, premature attempts at expulsion may lead to separation of detached portions and subsequent hemorrhage.

We consider that keeping the uterus well contracted by slight massage is the best preventive of slow separation of the placenta.

Ergot in the third stage is unwise. The writer thinks portions of membrane which fail to come away are better left alone unless they give rise to hæmorrhage. With this we fail to agree. If there is any doubt in the obstetrician's mind as to the complete emptying of the uterus of placenta or membranes at the time of labor, we consider it good practice to explore the uterus with the sterilized hand, just as one would do in a case of incomplete abortion or miscarriage.

A. C. H.



## Psychiatry

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W. C. HERRIMAN, ERNEST JONES.

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**Current Conceptions of Hysteria.** By W. A. WHITE. *Interstate Med. Journal*, Jan., 1910.

White first makes the following general remarks: "The fundamental idea upon which present-day conceptions of hysteria are built is that the phenomena of hysteria are mental—that hysteria is a mental disorder—a psychosis, and not a neurosis, as has been at times supposed. The psychic origin of hysteria is the prevailing note now running through its theoretical consideration." He then gives a general review, without making any personal contribution to the subject, of the different opinions held concerning the nature of hysteria. He does not distinguish between hypotheses, such as Janet's, clinical definitions, such as Babinski's, and the theory of hysteria, namely Freud's, but loosely groups all the opinions under the term theories. These he divides into the following groups:

1. *Psychological*.—Description of these takes up the greater part of the article. Starting from Binet's experimental proof of the existence of mental processes unknown to the subject's ego in such conditions as hysterical anesthesia, automatic writing, etc., he passes on to Janet's description of hysteria as "a form of mental depression, characterized by the contraction of the field of personal consciousness, and by the tendency to the dissociation and emancipation of systems of ideas which, by their synthesis, constitute the personality." The symptoms are due to the automatic activity of these split-off groups of mental processes. Sidi's description is very similar to Janet's. Freud goes further, in that he seeks to account for the dissociation. He finds that the ideas split off are so because they have been associated with a disagreeable feeling; they are, therefore, "repressed." The symptom is the working out of the repressed mental processes. Further, these processes are dynamic in nature, i.e., they are wishes. They are always of a sexual nature. The morbid process has arisen in early childhood, and is an error in sexual development.

2. *Physiological*.—Sollier's view, that hysteria is a partial sleep of the cerebral cortex, is mentioned, and White points out that it

is purely conjectural, and merely an attempt to translate known psychical facts into unknown physical ones.

3. *Biological*.—White erroneously omits to classify Freud's biological theory under this heading. Of the views he here mentions, the only important one is that of Claparède, who regards the resistance to hysteria shows to the revival of painful memories as a biological defence reaction. Many of the symptoms he explains by invoking atavism.

4. *Clinical*.—The only author mentioned under this heading is Babinski, who has sought to define hysteria as a group of symptoms that can be produced and removed by suggestion. As White puts it, this view "rests on entirely inadequate conceptions."

E. J.

## Reviews

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*American Practice of Surgery.* Vol. IV. BRYANT and BUCK. New York: Wm. Wood & Co.

Volume IV. of this system is divided into three parts, the first dealing with dislocation, the second with general operative surgery, and the third with orthopedic surgery. For the most part the articles give evidence of very careful preparation, and if we were to single out any one in particular we should select that on plastic surgery as especially worthy of careful perusal. The work is quite up to the standard of former volumes.

G. E. W.

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*Surgery of the Brain.* KRAUSE. Translated by Hanbold of New York. New York: Reblman Co.

One might infer from the title of this volume that a comprehensive study of the subject was to be found therein. This, however, is not the case, nor does the author intend that it is in any sense a text-book. To the internist and neurologist he leaves the discussion of diagnosis and symptomatology, and merely cites cases illustrative of his procedure in dealing with various cerebral conditions, with reasons therefor.

As is well known, the author favors operating by two stages, removing an osteoplastic flap in the first instance.

For the temporary arrest of hemorrhage he uses the Haidenhain and Kredel principle of ligatures applied on either side of the contemplated incision, in preference to either the rubber band or pneumatic tourniquet.

He differs from Cushing and Horsley in advocating his osteoplastic method for the decompression operation, nor would he adopt the muscle splitting procedure as taught by the former in the right temporal region.

In uttering a word of caution against the indiscriminate use of brain puncture for the purpose of getting a core of brain matter for diagnostic purposes, the author, we think, takes a very sane position.

The opinions expressed in this work are based upon the author's experiences in the operating room, and we feel that the surgeon who is not familiar with its precepts before opening the skull is not doing the utmost for his patient.

G. E. W.

*New and Non-official Remedies*, 1910; containing descriptions of articles which have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association, prior to Jan. 1, 1910. Price, paper, 25 cents; cloth, 50 cents.

This is the 1910 edition of the annual *New and Non-official Remedies*, issued by the Council on Pharmacy and Chemistry of the American Medical Association, and contains descriptions of all articles approved by the Council up to Dec. 31, 1909. There are also descriptions of a number of unofficial non-proprietary articles which the Council deemed of value. The action, dosage, uses and tests of identity, purity and strength of all articles are given. As an illustration of the scope of the book, attention is called to the following: The articles on arsanic acid and its derivatives, page 35; on phenolphthalein, page 152, and on epinephrine, page 73, indicate the effort which the Council is making to have new remedies known by their correct names. The description of medicinal foods, page 120, should put physicians on their guard as to the small value of such products. Particular attention is called to the description of serums and vaccines, page 169. Since our knowledge of the therapeutic value of new remedies is still largely in the experimental stage, the statements which appear under each proprietary article are based largely on the claims made by those interested. On the other hand, on page 56, under creosote carbonate, is a note on the claims of non-toxicity often made for certain remedies. A similar caution in reference to the claimed harmlessness of intestinal antiseptics appears on page 41 under beta-naphthol benzoate.

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*Practice of Gynecology*. By WILLIAM EASTERLY ASHTON. Fourth edition; revised and enlarged. Philadelphia: W. B. Saunders Co. Canadian Agents, The J. F. Hartz Co., Toronto.

This new edition of Ashton's *Gynecology*, intended for the use of practitioners and students, is full of useful and detailed information. The author forestalls criticism as to the details given in his work. He sets out to produce a work where nothing is taken for granted, not even the significance of leucocytosis and the value of differential counts, and on the whole accomplishes his purpose in a creditable manner. With such a purpose in view it would hardly be in order to criticize, but at the present time, when allied subjects are so admirably discussed by authors whose subjects are their specialties, one questions the advisability of introducing into

a work on gynecology so much of matter which, for purposes of reference and information, will be sought elsewhere. Even so, one feels that his splendid sections on baths, physical exercises and diets are quite fittingly introduced on account of the great importance of such measures in the management of diseases of women. Illustrations of various kinds abound. Here, again, true to his purpose, nothing is left to the imagination, for no matter how clear and comprehensive the text, almost every detail is illustrated, so that the slowest cerebrating beginner could not misunderstand. To the reader of even ordinary experience, much of the trivial detail is slightly wearisome. Many of what might be called "golden texts" are introduced in wide-spaced printing, which cannot fail to attract attention. No one could glance through the book without having impressed upon him the absolute necessity of a careful and exhaustive examination of all patients suffering from profuse or irregular menstruation at the menopause. Speaking generally, the book is a splendid production, filled with clear and valuable information.

F. W. M.

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*The Pocket Clinical Guide.* By JAMES BURNET, M.A., M.D., M.R.C.P.E. Edinburgh: John Currie.

As a vest-pocket clinical guide many students will find this helpful. It treats of the urine, blood, sputum, stomach contents and feces. As a ready, handy reference probably some general practitioners may find it useful.

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*Hints on Prescription Writing.* By JAMES BURNET, M.A., M.D., M.R.C.P.E. Second edition. One shilling. Edinburgh: John Currie.

In this little brochure attention is paid to methods to be adopted in writing prescriptions, in examinations, the Latin numerals, directions for the dispenser, incompatibility, list of principal doses, solutions to prescriptions set at recent examinations. The medical student will find it a practical and useful help.



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## COMMENT FROM MONTH TO MONTH.

**Radium** is the most concentrated form of energy known. It is not a constant substance, but keeps changing into other things, which have been denominated radium A, radium B, radium C, on up to radium F. Some of these have a life existence of only thirty or forty minutes.

Recently before the Authors' Club, London, England, Sir Wm. Ramsay, K.C.B., delivered a popular lecture upon the wonders of radium. The Alpha particles, Sir William explained, were really gas, and that two-thirds of the energy from radium came from the gas emitted by these rays. This gas comes off at a regular rate, and brought forth the question how long would radium last. His answer to this is that it will last forever, the amount of gas being always proportionate to the radium present. To the question when would radium be half gone, this had recently been investigated and measured in Sir William's laboratory, and it had been estimated that it would take 1,750 years. This would mean that everyone who possessed radium would have at least one-half his capital at the end of that time. Some time ago one-half a gramme, or 1-55th part of an ounce, came into Sir William's possession, entrusted by the Austrian Government. The value of this small portion was set down at \$45,000.

Being possessed of so much energy, what does that energy accomplish? The Alpha rays are sent out at a velocity of 40,000 miles per second. The Beta rays, about 1-1000th part of the size, exceed the Alpha rays in velocity, and are accredited with tremendous energy. Sir William has seen the Delta rays, which he stated would be gone in about forty years. He has never demonstrated the others. Although the energy of radium generally manifested itself as light, it kept itself hot. It has been found that it gave off about 3,500,000 times as much heat as given off by the oxyhydrogen blowpipe, which gave a temperature of over 2,000 degrees Centigrade.

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**The use of Paper Bottles in the Delivery of Milk** would be a step in the right direction—cleanliness and prevention. We now get butter and ice cream delivered in paper boxes; eggs in cellular boxes; oysters in paper boxes, and cold meats. Paper wrappers for loaves are used by some bakers. Milk, however, so susceptible to contamination, is delivered in vehicles which the day before may have carried milk to a scarlet fever, typhoid or diphtheritic person.

The single service container as exemplified in the paper bottle and the abolition of milk cans and glass bottles would bring milk for direct consumption from the udder to the mouth, from the teat to the tongue. And they could be made educators by being labelled with pertinent facts.

The United States Department of Agriculture in Bulletin No. 46 says: The ideal package for milk carriage and delivery is one that would be light, clean, safe, and could be used only once and then destroyed.

Dr. Ernest Wende, Health Commissioner of Buffalo, says: The abolition of the existing milk cans and bottles, and the adoption of the single service paper containers for direct consumption—no Pasteurized, sterilized or certified milk can compete with the raw milk from the healthy udder. This close tie between cow and consumer must not be severed by manipulations that are deleterious and by cans and bottles that are unsanitary.

All food for man's consumption must be handled with the greatest care and intelligence in order to prevent sickness and disease in the human being; and it is inconceivable how prone we are to go along year after year knowing that articles of food, particularly milk and bread, these essentials of daily life, are handled in the primitive way of our grandfathers. May the day speedily come when milk is delivered in the single service container and bread likewise.

**Typhoid Fever** should be handled as other contagious diseases. Three years' study of the disease in Washington and the District of Columbia has demonstrated that contact, infected milk and importation are the three greatest factors in the prevalence of the disease.

In 1908, out of 665 cases reported and investigated, 21.8 per cent. were imported cases. Five hundred and forty-two cases were contracted by infection within the district, and of these cases 9.59 per cent. and 21.3 per cent. were attributed to infected milk and contact.

That contact is important has been before pointed out in these pages. Dr. Victor C. Vaughan, one of the commission in 1898 to investigate typhoid in military camps, emphasizes this. In the United States military camps this commission found that personal contact was to be held responsible for 66 2-3 per cent. of the cases.

Montreal has recently recovered from a rather extensive outbreak. Toronto has had one not quite so severe. Water seems to be the cause of it all in these two cities. The question of investigating the milk supply and contact does not appear to cut any ice whatsoever. However, the opinion is a growing one amongst physicians and sanitarians that typhoid fever cases should be dealt with like other contagious diseases.

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**The "Public Health Militia"** calls for the enrollment of all good citizens according to Dr. M. J. Roseneau, late of the Public and Marine Hospital Service, Washington, but now of the Department of Preventive Medicine and Hygiene, Harvard Medical College.

In this connection life insurance companies and fraternal societies are becoming alive to the potent influence for good their respective bodies may exert, not only for themselves and their policyholders, but to the community and the state at large.

That there is a latent power for good in a public health way is rapidly becoming known and appreciated by these organizations. That latent power is the well-selected band of physicians who as examiners, and officers and agents who as solicitors, are in a position to join forces to form a well-organized "public health militia."

In these two classes interested in life insurance work there is at all times an interest in questions of health and sanitation, which makes a careful and efficient body of good citizens to enter the field in any campaign for the general good.

There is scarcely a home into which the physician and life

insurance or fraternal solicitor has not penetrated, and there is scarcely a portion of the country not traversed by their influence.

These bodies have all headquarters from which a plan of campaign can always be conducted, and their possibilities for good are almost unlimited.

The question is: How shall these powers be brought into action and utilized?

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**Of the Internal Parasites of Rats and Mice in their Relation to Diseases of Man** one is particularly interesting because of its practical importance. This causes in man the zooparasitic disease known as trichinosis. The rat is a practical and permanent reservoir for this parasite, and the disease in man will probably not be eradicated until rats and mice cease to be.

Rats are cannibalistic, and trichinosis is a common disease among them. They become infected by eating each other, eating scraps of pork from the offal piles of slaughter-houses, or from swill, also from dissecting-rooms.

Swine become infected by eating rats and as above.

Man becomes infected almost solely from pork, rarely from other meats.

The medical significance of trichinosis refers to infection with the flesh-worm or trichinia. It chiefly occurs in mammals of the carnivorous or omnivorous species. It is transmissible by the eating of the uncooked flesh.

As the adult parasites are in the intestine, we get such gastrointestinal symptoms as irregular appetite, nausea, diarrhea, or constipation and colicky pains. There may be an edema around the eyes, and about the eighth day muscular pains begin. Then sets in the period of digression. The myositis is especially marked in the biceps; arms become semi-flexed; and chewing, swallowing, breathing and speech become difficult. There is fever, perspiration and fixed eyes.

When the parasites become encysted in the muscles, there are noted cachexia and anemia, pruritus, miliary cutaneous eruptions, followed by desquamation.

About the third week there may be such complications as facial edema, bronchial catarrh, pneumonia, pleurisy.

In the clinical diagnosis, the microscope should be used.

Under the following circumstances trichinosis should be suspected: Several patients in same family or neighborhood, gen-



erally of North German descent, particularly after some festivity where pork has been served.

In the differential diagnosis take into account typhoid fever and rheumatism.

Preventive treatment should be directed towards killing off rats and mice and the eating of pork well cooked. The treatment of the attack should be to purge in early stage, but nothing will act upon the larvae in the muscles. Stimulate to carry the patient over that period.

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**The Statement in the Western Canada Medical Journal** that the "Dominion Medical Association asking the B. C. Colleges of Physicians and Surgeons to take no action until the amended Roddie's Act has passed Parliament virtually is putting a stopper on the culminating acts of the Inter-Provincial Federation of the four Western Provinces," is incorrect and has no foundation in fact, as neither from the Special Committee on Dominion Registration of the Canadian (not Dominion) Medical Association nor the office of the General Secretary has any communication issued to B. C. Council on the matter of Western Federation.



## News Items

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DR. JOHN CAVEN, Toronto, has returned from a trip South.

DR. H. T. MACHELL, Toronto, has returned from New York.

DR. A. H. GARRETT, Toronto, visited Washington at Easter time.

DR. HARVEY SMITH, Winnipeg, has returned from the Bermudas.

THE American Proctologic Society is to meet in St. Louis June 6th and 7th, 1910.

A LEADING Winnipeg physician wants a partner. Address this office for particulars.

DR. F. A. CLARKSON, Toronto, Secretary of the Ontario Medical Association, will shortly sail for Europe.

DR. CHARLES SHEARD, for eighteen years Medical Health Officer of Toronto, has resigned that position.

TORONTO will give an additional \$250,000 towards the new Toronto General Hospital, which is to be finished in 1913.

DR. J. G. FITZGERALD, of the University of Toronto, will spend the next six months working in the Pasteur Institutes in Brussels and Berlin.

DR. G. REID SIMPSON, Toronto University, 1895, died in this city on the 9th of April. Dr. Simpson practised at Hamilton up to four years ago.

QUEBEC PROVINCE has an enormous infant mortality. Statistics just published show that in 1908 there were 5,716 deaths among infants, 16.6 per cent. of the deaths of all kinds.

CANADIAN MEDICAL ASSOCIATION in Toronto, June 1st to 4th  
Readers should enquire of their ticket agents at an early date as to rates, and should early reserve hotel accommodation.

It is understood that the Ontario Government will shortly commence the manufacture of sera in Toronto.

INSANITY is on the increase in the Province of Quebec. The total insane population in 1908 was 3,688, an increase of 193 in a year.

QUEBEC medical men are indignant over about a dozen private bills in the Legislature to make medical students physicians by Act of Parliament.

ACCORDING to Dr. Pelletier, Secretary of the Board of Health of Quebec, many municipalities in that Province do absolutely nothing towards preventing the spread of contagious diseases.

## Correspondence.

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### GREATER BRITAIN AND THE ANNUAL MEETING, 1910.

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*Sir*,—The Colonial Reception Committee is particularly desirous of bringing the Annual Meeting, to be held in London in July next, to the notice of all medical practitioners residing in the dominions beyond the seas, as affording them an unusual opportunity of visiting London both for the scientific purposes of the meeting and also for social intercourse with their fellow-practitioners throughout the Empire.

The Colonial Reception Committee, in conjunction with the Colonial Committee of the Central Council, desires, through the medium of this journal, to extend a very cordial invitation personally to all medical practitioners in the colonies, and assures them of a hearty welcome to the Annual Meeting and to the capital of the Empire.

Great efforts are being made by these two committees to arrange such entertainments as it is hoped will meet with the approval of their colonial brethren, and so add to the success of the meeting of 1910.

We are, etc.,

EDMUND OWEN, *Chairman Colonial Reception Committee.*

DONALD ARMOUR, *Hon. Sec., Colonial Reception Committee.*

429 Strand, W. C., Jan. 3rd.

## Publishers' Department

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REMARKS ON GLYCO-THYMOLINE.—W. R. D. Blackwood, M.D., Philadelphia, Pa.—For many years past this preparation has been one of my mainstays in diseases of the mucous membranes, and it has held its place despite the trials of many other agents warranted to supplant it by the advocates who decried Glyco-Thymoline when I spoke of its virtues. Space is now getting too valuable to waste with long, detailed descriptions of separate cases, and anyhow I never did write in that manner. I think general remarks about agents is the better way, and we need this more than stories of symptoms and temperatures, with daily alterations. No class of maladies is more troublesome than disorders of the mucous membranes, and none more difficult to eradicate thoroughly, and we have been put to our wits' end many times for remedial agents in such cases. The local treatment of catarrhs is frequently disappointing, and none more so than the prevalent one—post-nasal catarrh. Unless we can get an alternative condition established, little good is done, and nothing has been of greater service to me than Glyco-Thymoline, locally and internally. In several hundreds of long-standing and severe cases of this intractable and common affliction, I have come to regard this preparation as a standard and almost routine remedy. I seldom care for a post-nasal trouble without prescribing it at the onset, and if I don't, it is not long before it comes into use. It is just alkaline enough, just so as to cause the dialysis (the action locally with exactly the right amount of fluid excretion through the diseased membrane), just enough astringent without drying the parts, and just the right thing in the direct line of reparative work; it sets up tissue building soon after the membrane gets somewhere near its right shape. Many things are employed in catarrh, but I firmly believe that if I was confined to one agent only, that would be Glyco-Thymoline. For years I used the so-called antiseptic tablets of borie acid and glycerine, etc., and with good results; but for a long time past this is thrown aside and the Glyco-Thymoline takes its place. I use it in about half-strength, with a K. & O. nasal douche, and from twice to four times daily. With this, in bad cases I give internally, adding to it or giving separately, mercuric bichloride, and if done separately the menstruum is compound syrup of stillingia. In presumed syphilitic persons I always do this.

In gastritis, chronic enteritis, vaginitis, gonorrhea, and in re-

curring attacks of what in many instances is deemed appendicitis, I use this agent freely, and always with good results. As a local application to foul ulcers, and especially to hemorrhoids, I think this preparation is very good. In the nasty leg ulcers, which now and then defy all remedies, Glyco-Thymoline does wonders; it can't do harm any time, and I am almost persuaded to give it in all instances. In bronchitis and asthma it is fine; in spasmodic croup it fills the bill nicely; it does well in venereal disorders locally, and in blautitis it stops the trouble at once.—W. R. D. BLACKWOOD, M.D., Philadelphia, Pa., *Medical Summary*, December, 1903.

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MENTAL DISTRESS.—Of all the various anomalies of the menstrual function, none occasions more worry on the part of the patient than a suppressed or scanty flow. The fact that cessation of the menses is a common symptom of phthisis is known to practically every woman; hence it is that whenever the expected flow is absent or scanty, there is apt to be a degree of mental distress entirely out of all proportion to the amount of physical discomfort experienced. Mindful of the fact that worry of this character is always detrimental to the general welfare of the patient, the physician very wisely avails himself of an agent having the property of promoting the menstrual discharge. Despite the fact that overwork, over-study, lack of exercise, insufficient food, anemia and numerous other circumstances may be the cause of non-appearance or deficiency of the catamenial discharge, it is, in the opinion of the best-informed, always the part of wisdom to restore the function with the least possible delay in order that the patient may be spared the depressing consequences of extended anxiety. Furthermore, a debilitated condition of the reproductive system is invariably associated with a suppressed or scanty menstrual flow, and by reason of this fact, the prompt administration of a utero-ovarian stimulant is obviously of more immediate benefit than the employment of measures directed toward improving the nutrition and general health of the patient. When the menstrual discharge has been acutely suppressed or rendered scanty by exposure to cold, change of climate, worry or grief, the administration of a potent utero-ovarian stimulant is incomparably more beneficial than drugs that only affect the reproductive system indirectly. The invigorating action of Ergoapiol (Smith) on the uterus and its appendages renders it of extraordinary service in cases of suppressed or scanty menstrual flow. The stimulating action of the preparation on the sexual apparatus is exceptionally marked and prompt, and



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---

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in instances where debility of these organs is the underlying cause of suppressed or scanty menstrual discharge, its employment is invariably advantageous. In the amenorrhea of "shop-girls" debilitated by overwork and insufficient exercise, Ergoapiol (Smith) has proved particularly beneficial. It is likewise notably serviceable in scanty menstruation of women who have borne children in rapid succession. In cases of acute suppression arising from sudden exposure to cold or dampness, change of climate, shock or similar causes, the preparation should be administered in doses of one capsule three or four times a day until the function has been re-established. When the amenorrhea is of long standing and due to general debility, anemia, sexual depression or other systemic impairments, one capsule should be administered night and morning throughout the intermenstrual period.

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THE HARBOR OF CONVALESCENCE.—While the physician is always on the alert to meet and overcome any of the various complications or serious symptoms that threaten the patient during the acute stages of a severe constitutional illness, it is not infrequently the case that insufficient attention is given to the effort to hasten a return to normal health after the subsidence of the acute symptoms. The rocks and shoals of active disease have been successfully evaded and the medical pilot has brought his more or less damaged human craft into the peaceful harbor of convalescence. At this point both patient and attendant are apt to "rest on their oars" with the idea that the "*vis medicatrix naturæ*" is all-sufficient to bring back the normal vitality, without the special help of medication. It can scarcely be said that such a "*laissez faire*" policy is to the best interest of the patient. Unless the reparative and restorative forces of the organism are encouraged and fortified, a slow and retarded convalescence is apt to supervene. The essentially devitalizing influence of the morbid agent in Typhoid, Grippe, Pneumonia, etc., is exerted primarily and principally upon the blood itself and a readily tolerable, promptly assimilable and thoroughly efficient hematinic, such as Pepto-Mangan (Gude), is always serviceable and valuable. As Pepto-Mangan (Gude) is palatable and non-irritant, it exercises no disturbing effect upon appetite or digestion—in fact it increases the desire for food, and, by its general tonic action, assists in its absorption and assimilation. Its freedom from constipating effect also renders it especially suitable in the restorative treatment of the convalescent invalid.



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ELEMENTS OF SUCCESS IN SURGERY.—Cordier concludes an article on this subject with the following deductions: (1) The field of surgery is a vast one, and is best covered by the specialist in some of its departments, the eye and ear especially. (2) Surgery and medicine should go hand in hand in the treatment of border-line cases, but should be divorced in the strictly surgical or medical cases. (3) The selection of a surgeon for a given case should be made from no other standpoint than that of his recognized ability. (4) A surgical operation should be performed as quickly as possible, consistent with good and completed technique. (5) All unnecessary and rough handling of important tissues should be avoided. (6) Careful, short anesthetics will help to keep the death-rate low. (7) Careful hemostasis, with proper ligature material, is an important element in successful surgery. (8) Thorough aseptic technique should be carried out, and may be obtained either with or without rubber gloves and mask. (9) Lawn tennis suits and gloves are only too often the avenue leading to wound infection. (10) Short post-graduate courses instill false surgical confidence, and lead to many surgical disasters. (11) Honesty and sincerity should ever be the keynote in deciding as to the advisability of performing any surgical operation. (12) Mental tranquillity of the patient is of much importance preceding the performance of some surgical operations.—*The Lancet-Clinic*.

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THE TREATMENT OF ABORTION.—In concluding a very complete and comprehensive article, Stowe, in *Surgery, Gynecology and Obstetrics*, calls particular attention to the following points in the treatment of abortion:

1. The importance of treating all cases of uterine hemorrhage accompanied by intermittent pelvic pain in a woman of child-bearing age as acute abortion.

2. The value of absolute rest in bed in the treatment of threatened abortion until all pain and bleeding have ceased.

3. The necessity of saving as much blood as possible to avoid a long period of anemia and prostration.

4. The selection of cotton pledgets in lieu of gauze strips as a material for vaginal tamponage.

5. The use of finger curettement and manual removal of the uterine contents whenever possible.

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9. The great danger of uterine perforation with the steel curette in acute abortion, and the value of the instrument in chronic abortion.

10. Curettement should be raised to the dignity and seriousness of a surgical operation, and should be performed under the same surroundings and with the necessary equipment.

11. The importance of refraining from curetting after the complete emptying of the uterus.

12. The use of ergot after the uterus is empty.

13. Local interference in septic abortion when the infection is limited to the uterine cavity. Less tendency to interfere when the adnexa or peritoneum are involved in the septic process.—*Med. Standard.*

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IN our advertising pages will be noticed the advertisement of the Rapid Cleaning Cartridge, marketed in Canada by Mr. Otto T. E. Veit, 28-30 Wellington St. West. This is said to be a rapid and effective disinfectant and thoroughly efficacious in every respect.

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ANTIPHLOGISTINE, the sole product of the Denver Chemical Mfg. Co., New York, has recently been called upon to protect its interests in the United States Circuit Court, and it is pleasant to record that they have been properly given protection by said Court. The action was taken against a Western company who marketed a dressing under the name of "Denver Mud," a nickname often facetiously applied to Antiphlogistine.

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"SWEET BABEE" is a wide-mouthed, rubber-capped and nipped feeding or nursing bottle, which is being placed on the Canadian market by Mr. Otto T. E. Veit, 28-30 Wellington St. West, Toronto. The simplicity of construction and the adaptability to cleanliness will appeal to physicians. Indeed, it is about the best we have seen in the line of nursing bottles.

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IN allaying inflammation in the prostatic urethra before surgical operations, and in keeping the urine bland and non-irritating after the operation is complete, sanmetto has been used very extensively and found valuable.

# Dominion Medical Monthly

And Ontario Medical Journal

VOL. XXXIV.

TORONTO, MAY, 1910.

No. 5.

## Original Articles

### SIMPLE METHODS, AND CARE IN THE USE OF GENERAL ANAESTHETICS.\*

BY SAMUEL JOHNSTON, M.A., M.D.

Senior Anaesthetist to Toronto General Hospital.

In selecting this title, I do so because of the lack of opportunity that many well-qualified practitioners have in familiarizing themselves with the giving of anaesthetics.

At this date in the history of medicine and surgery, an apology is scarcely needed in urging that a scientific and more detailed knowledge in the giving of anaesthetics is necessary.

It is a lamentable fact that this branch in the greater practice of medicine has been very sadly neglected, and I believe, because of it, many fatalities, not the greater number of which has been recorded, can be traced directly to an overdose of the anaesthetic proving fatal on the table, or the choice of the wrong drug for that particular case, or, perhaps, the improper administration of the narcotic, which may result fatally, either on the table or subsequently.

Or again, if a fatal result does not occur, the health of the patient may be, more or less, permanently impaired. Many patients have told me from time to time that they have never been the same since they had an operation, although as far as could be seen the result of the operation had left nothing to be desired; but these patients will say that they "take weak or dizzy spells," and it will be found that sometimes they have slight attacks of jaundice or albuminuria. On inquiry, I have found the history something like

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\*Read before the Welland County Medical Society, April 23rd, 1910.

this: following the operation persistent nausea and vomiting for days, and sometimes even for weeks, with consequent general debility.

Such cases as these I have known to occur after comparatively slight operations, where one could not honestly attribute the condition to any after-effect of the operation.

I have learned, in such cases, the patient was either kept too profoundly under or else subjected to incomplete alternating with too profound anaesthesia, or, perhaps, too long a time being taken in the induction period.

The probable cause of this condition is too much of the drug, with a consequent result of some organic change in the heart muscle, liver or kidneys. Time will not permit me to go into the pathology of this condition, as it is a practical paper I want to give you on how to properly use the different drugs for producing anaesthesia.

If you will permit me, Mr. President, I will speak of the different drugs in common use, and how they should be administered.

We may take it as an axiom that all drugs used for producing surgical anaesthesia are poisons.

The least toxic of these I have found to be *nitrous oxide combined with oxygen*.

The administration of this anaesthetic in prolonged operations is difficult, as it requires a great deal of practice and skill to maintain smooth and satisfactory anaesthesia. This combination, so far, is not practicable except in institutions and large centres, as the apparatus is cumbersome, and the large supply of nitrous oxide and oxygen required is sometimes hard to get.

I have been using this combination more or less for the past three years, when it seemed that any other anaesthetic was out of the question, in such conditions as diabetes, marked kidney disease, very low percentage of haemoglobin, and marked anaemia of any kind, with very satisfactory results. Sometimes these administrations lasted for almost three hours in such operations as hysterectomies, appendectomies, mastoids, etc. The cost of the gases at present precludes the possibility of its taking the place of ether.

*Ethyl Chloride*.—I have been using this drug a great deal in short operations, such as opening abscesses, removal of adenoids and tonsils, setting fractures, reducing dislocations, etc., also as a preliminary to ether, when nitrous oxide is not convenient, and always preceding ether with children. It is a nice anaesthetic to use in your office.

The method I use in giving this anaesthetic is by spraying or dropping it on the ordinary mask, folding a towel loosely cone-shaped around it, with a small opening at the apex of the cone, through which I drop the anaesthetic. By pressing gently on the stopcock and allowing the spray to strike against the valve a drop is formed. I prefer dropping it on the mask, rather than spraying it, for if there is not sufficient gauze covering the mask, it is liable to spray through on the face, much to the discomfort of the patient. This method of giving ethyl chloride has many advantages over the closed method. There is no asphyxiation, no spasm, which so often happens when the closed method is used, the anaesthesia is longer, and can be prolonged for an indefinite length of time by continuing to drop it on the mask. I have kept patients under this anaesthetic from 45 to 60 minutes, the chief objection being that it takes a great deal more of the ethyl chloride than by the old method.

I think when this method of administration of ethyl chloride becomes more generally adopted, the comparatively high mortality recorded will be much lowered.

*Somnoform* can be used in the same way. It is a mixture consisting of sixty parts ethyl chloride, thirty-five parts methyl chloride and five parts ethyl bromide. It has a disagreeable odor, and a tendency to decomposition, and thus precludes any advantage over ethyl chloride. My experience is that there is a little more depression with *somnoform* than with ethyl chloride.

*Ether* is the most generally used anaesthetic, particularly in hospital practice, and is the drug I would urge every practitioner to familiarize himself with, on account of its safety as compared with chloroform. There is a general prejudice against ether in certain cases, such as nephritis, pulmonary affections, and also in brain surgery. But, I find that giving it by the open method, there are very few cases in which it is contra-indicated.

In acute nephritis, I have seen as much trouble after pure chloroform as with ether when given by the open method, and, honestly, I have seen very little trouble with either. In these cases, if I cannot use nitrous oxide and oxygen, I give a mixture of chloroform and ether, and have never yet had any untoward results.

Ether is contra-indicated in acute bronchitis. With this condition present, I give a mixture of chloroform and ether; but if this irritates I use a little chloroform to put the patient under, and then continue with chloroform and ether.

In chronic bronchitis, in all stages of pulmonary tuberculosis, and in empyaema, if I do not use nitrous oxide and oxygen, I begin



with a mixture of chloroform and ether, and sustain anaesthesia with pure ether.

In operations on the brain, I use ether from the beginning, notwithstanding the fact that so many brain surgeons object, holding that this anaesthetic causes hypercongestion of the cerebral vessels; but this objection only holds good when the old-fashioned closed method is used. When ether is given by the open method there is so little difference between its action on the cerebral vessels and that of chloroform that for this reason it certainly is not contra-indicated; besides, the patients do so much better after the operation when ether is given that this alone would be a positive reason to use it in such serious operations. I have never had any surgeon object to ether in these brain cases.

The old method of giving ether, *viz.*, the closed, which has been so much used both in Great Britain and America, is, I think, a thing of the past. In the first place, it is insanitary, the patient breathing and re-breathing his own respired air. The anaesthesia is then not purely a result of the inhalation of the ether, but partially asphyxial.

The majority of patients secrete a great deal of mucus, caused by the hypercongestion due to the limited supply of oxygen. This mucus very often causes a filling up of the bronchi, and often results afterwards in pulmonary oedema. This mucus, particularly that coming from the nasal passages, is often infective, and may produce pneumonia. A great deal of mucus is swallowed during the initial stage of anaesthesia, and being laden with the vapor, acting as an irritant in the stomach, causes a great deal of after-sickness. The congestion of the vessels about the head and neck, and, indeed, the stasis in the whole venous system, produces stertor and tumultuous breathing, which so often handicaps the surgeon, especially in abdominal operations, and causes a great deal of after-headache.

After a little practice with the open method, the administrator is able to produce a smooth anaesthesia, with little or no discomfort to the patient, no extra secretion of mucus, and no venosity; but he has tranquil breathing, and the surgeon is able to do his work with greater facility and ease. The after-effects are infinitely less distressing, with no headache and very little nausea.

My method of administering this drug is very simple. I take the ordinary mask covered with six or eight layers of gauze—I use the gauze in preference to lint, as the air passes more freely through it—I begin by holding the mask about four inches away from the face, and drop the ether on it. The vapor being heavier than air,



flows down over the face well diluted with air. In a few seconds the patient becomes accustomed to the vapor, when I gradually bring the mask down until it has reached the face, dropping on as much ether as the patient will tolerate. The dropping must be constant and increasing in amount. After a minute or so with the mask thus on the face, I take a square towel, and fold it diagonally, having then a three-cornered towel doubled. I place the apex over the chin, and fold the towel around the mask, the vapor being retained in the space between the mask and the towel, before inhalation. By this method surgical anaesthesia should be produced in from four to ten minutes.

After anaesthesia is produced, with many patients more of the mask may be exposed, and, in the majority of cases, the towel may be dispensed with altogether. The amount of ether used is a little in excess of what one may use by the closed method, but so little that it is scarcely worth considering, and, further, it will be found that, with more practice, less of the drug will be used.

Next we will consider the administration of *chloroform*.

Many very ingenious appliances have been devised from time to time for the administration of this drug, whereby the percentage inspired has approximately been reckoned. I have used the Vernon-Harcourt inhaler with a degree of satisfaction, and, I think, with a little practice, one can administer chloroform with greater safety to the patient, as it is not possible to give as much of the drug as it is by the drop method. I am free to admit, however, that I am old-fashioned enough to imagine that an intelligent administration with the mask and the drop bottle will prove more satisfactory for general use than any appliance that has yet been devised. For it is neither altogether the amount of the anaesthetic that is administered which has to be considered, nor is it well that the attention be taken up in watching the working of valves, and the other mechanism of the appliance, but it is at all times the condition of the patient and the effect produced by the drug that must occupy the administrator's entire attention. Moreover, a very small percentage of the physicians who are called upon from time to time to administer chloroform can or will have any such appliance with them, or, if such should be handed to them, would in many instances be able to use them satisfactorily.

Now, the question is, is it worth while in teaching students how to administer anaesthetics, to train them in the use of these appliances; or is it worth your while, as medical men, when giving an anaesthetic, to direct your attention to the workings of a machine, rather than the changing condition of the patient?

In administering chloroform, I use the same kind of a mask without the towel in the same position as with ether, but not at any time allowing it to rest on the face, so that as much air as possible will mix with the chloroform vapor before it is inhaled. Chloroform vapor, being heavier than air or ether, will flow over the face, and more be inhaled without causing a deleterious effect, as it would if the mask were fitted closely to the face with much less anaesthetic given without admixture of air. I do not mean that I do not approach the face with the mask, as the patient becomes accustomed to the drug, but rather to make it the rule to keep it a little away from the face. If, after the patient is anaesthetised, as little of the drug as possible is given to produce the degree of anaesthesia required, and the patient kept evenly under the influence of the anaesthetic, it will be the exception rather than the rule to have much after-sickness.

Chloroform alone is not nearly so much used now as formerly, its use being largely superseded by that of the C. E. mixture, consisting of one of chloroform, and two of ether by volume. This mixture I have used a great deal, and I consider it safer than pure chloroform in the hands of one not skilled. More of this anaesthetic is required, but after administering it two or three times, it will be found quite as easy to get and keep the patient properly anaesthetised as with chloroform.

Before concluding this paper I would like to say a word or two about the *preparation* of the patient prior to the administration of an anaesthetic, and also the after-treatment. I have invariably found that the proper care of a patient before the taking of an anaesthetic helps to minimize distress and danger afterwards.

If sufficient time can be given, it is better to have the alimentary canal thoroughly cleansed at least twenty-four hours prior to the operation, and after this has been effectively done, light, nutritious and easily assimilated diet given at intervals up to five or six hours before the operation. Two or three hours before the administration a simple enema should be given. If the patient is weak, and feeling the need of some food, a cup of weak tea or coffee with little or no milk may be given. If this is not desirable, a little beef broth free from fat, or a nutrient enema may be given within two hours of the anaesthetic.

With regard to the care of the patient subsequent to the operation, I might say that I very often wash the stomach before the patient has left the table and recovered consciousness, with a weak solution of lime water or bicarbonate of soda. I invariably do this in cases of general peritonitis, relieving the stomach of any irritating matter that might be conducive to vomiting or peristalsis.

In cases where this is not done, and the patient is suffering from thirst or nausea, I recommend the giving of copious draughts of hot water, sometimes with a little bicarbonate of soda dissolved in it; if there is retching this may be immediately vomited, but I do not hesitate to repeat the treatment, even though it may again come up, for in the majority of cases, if it does not totally alleviate the distress, it gives the patient great relief. Should vomiting persist, a little dry champagne and water is very often found to relieve the condition.

In spite of this and any other treatment that may suggest itself to you, if the patient is not relieved, small doses of calomel (1/10 gr.), combined with bicarbonate of soda, given every hour until a grain of calomel has been taken, will in the majority of cases have the desired effect. If it does not, after waiting a few hours, repeat the calomel in the same way.

Now, Mr. President, I would like to add a word of warning, that signs of danger and collapse may arise at any time from the induction period until the last drop of the anaesthetic is given; it, therefore, behooves the administrator to be mindful of the fact that during the administration of any anaesthetic eternal vigilance is the price of safety.

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### DIFFICULT DIAGNOSTIC QUESTIONS IN EVERY-DAY PRACTICE.

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GOLDWIN HOWLAND, M.B., M.R.C.P., TORONTO.

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There are three diseases which we meet in every-day experience which lead to doubt in our own minds, and in our patients' minds, and which are never definitely settled, and these are (1) Mild Febriculas of two or three weeks' duration, (2) Scarlet Fever, (3) Diphtheria.

We are constantly seeing cases which have as their symptoms the following:

Malaise and disinclination to work and to eat of a few days or a couple of weeks duration, usually without nausea or vomiting, with no marked abdominal signs as a rule; perhaps constipation of a degree more than normal is present and frequently signs of some colonic tenderness and a tendency to gas distention—but no rigidity.

Coryza may be slightly in evidence and occasionally bronchitic cough is present.

Nervous signs are those of any mild infection, such as languor, headache, not extreme in degree, and perhaps a certain degree of bodily felt pains.

Careful physical examination elucidates usually a palpable spleen, but no rose spots. The Widal test is negative both to typhoid and para typhoid tests. Blood culture reveals nothing of value in the case.

Finally the clinical course gives us the picture of a mild febricula, the temperature, rising perhaps to a maximum of 101 for a day or two with a morning fall to 99 in some cases, while in others the course shows a rise and fall between 98.4-5 and 99 as its maximum.

As the first or second week passes, the coated tongue clears, the spleen gradually diminishes, the temperature settles and the appetite returns and the case is cured.

From my late position as Medical Registrar I have seen many such cases under many men, and the diagnoses have always been doubtful to my mind as far as they can be settled at all. Influenza, typhoid, para typhoid, ileo-colitis in the summer season and other intestinal infections all have had their supporters, and many other diagnoses were propounded.

Of the varied diagnoses, two require comment, and are much the more common.

Influenza infections are so frequent both in summer and winter and are accompanied, a fact frequently forgotten, by an enlarged spleen, that in a given case negative to all tests, with such a course as is stated, particularly if the onset tends to be more abrupt, the pains more marked, the tongue catarrhal in appearance and the appetite easily restored, then influenza is the most likely. In this class of case also one must watch carefully the lung condition, for I have several times found consolidation of a lobe occur, evidenced by blood-stained mucus if cough was sufficient to produce expectoration and by the usual physical signs, and yet with no sufficient alteration of temperature, pulse or respiration to attract attention, and latent pneumonia was present. Dr. Chambers has called my attention to this condition in Mitral Stenosis, and in one of my cases marked stenosis was present also.

But most of these cases are undoubtedly typhoid and para typhoid cases of mild severity.

The degree of gradual disinclination to eat and move, the coated tongue clearing as the week and a half passes away, the return of appetite at the close of the attack, and lastly, the appearance which strikes the observer so frequently in typhoid, and the odor which



also is largely distinctive, appeal to one's clinical instincts and over-rule the pathologist's negations.

That many people have typhoid in mild form and work throughout the disease I firmly believe. That others have so mild a course that we misdiagnose it, is a truth most will admit, and lastly, that the more severe cases of all intensity are those with the most definite signs, clinical and pathological, is the common fact we all agree on.

The second common disease we misdiagnose is scarlet fever, and to show my ground for this let me state that in one distant hospital I saw a case visited by six specialists—of these, three said scarlet fever typical, and three said definitely not.

However the point I raise here, I may briefly state, and that is that while scarlet fever is due to a probable streptococcus infection and to a definite type of this family and one that is highly infectious, yet there are other streptococci related, just as the para typhoid is to the typhoid germ, which will produce like symptoms and a rash which is probably so similar that the "Fathers" themselves cannot distinguish it, and yet the cases are of mild or non-infectious nature.

Cases following nasal operation frequently develop such a condition and again whenever infection of streptococcal origin is present on the hand or finger, etc., general scarlet fever rash may occur.

But most difficult of all are those cases, all too common of influenza so called, but which in truth are tonsillar infections by cocci in which a scarlatinal rash appears. Over and over again you hear it said, "Oh, she had a severe influenza with a scarlatina rash."

By this is meant there was sore throat, infective pains in the limbs, head, headache, etc., and that therewith was associated a rash. One must use every possible element in diagnosis in separating the typical scarlet fever from pseudo types in order to save one's patients from long isolation.

In conclusion here let me say that by the greatest care it is usually possible to diagnose by the etiology, the clinical picture, and, unfortunately, finally by the subsequent history between true scarlet fever and pseudo scarlet fever due to allied organisms. In the mild enteric cases the bacteriologist confuses us by declaiming his negative findings, and here he is similarly of no assistance, owing to his failure to capture the distinguishing germs.

My final disease is to refer to a doubt in the bacteriological diagnosis of diphtheria and to again lay stress on the feature that ever impresses me, namely, clinical experience is supreme and bacteriological examinations must be of great importance, but not determination in diagnosis.



Many diphtheritic germs are constantly being carried in healthy throats, quite apart from attacks of the disease. It is claimed and probable that these may produce severe cases of the disease in others.

Frequently in culturing throats for other diseases, influenza, quinsy, streptococcus and staphylococci tonsillitis, rheumatic tonsillitis, and in more inflamed throats, one may meet with the diphtheria organism.

Such a finding bans the unfortunate patient to seclusion for perhaps weeks, until the culture media fails to respond to its pabulum of tests.

Here the clinical man should step in, and I say this knowing that a storm of protests will arise from our diphtheria scared population, which contrasts well with some English districts, where the diphtheria patients, I am told, are in the general ward, a condition I do not, despite the tone of my paper, advise.

If the physician has a primary non-diphtheritic condition and clinically by symptoms and by throat appearance together the case is not diphtheria, yet the cultures show that the diphtheria bacillus is present, then the treatment should be antitoxin to prevent and local care throughout a period till the culture is negative, but the individual should be free to continue his active employment if he possesses mental ability to ensure no carelessness on his part.

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## THEORY AND PRACTICE IN PERCENTAGE FEEDING.\*

By ALEXANDER A. JACKSON, M.B., BOLTON, ONT.

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Applied theory in percentage feeding of infants has in the past produced much dissatisfaction, but owing to the concentrated attention of pediatricists to the subject, especially to the chemical aspect of it, much knowledge has been acquired, and year by year we see theory and practice becoming more nearly a unit.

The chemistry of human milk and of cows' milk is agreed upon by all students of the subject, and though we have so far failed to produce an infants' food from modification of the latter to be quite the same as breast milk, we can so nearly do so, as to greatly simplify the problem of infant feeding.

It is not the object of this paper to present any new material, but to put forth a plea or a more careful consideration of the numerous varieties of digestive capability, so that our percentage

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\*Read before Ontario Medical Association, June, 1909.

prescription will not be Fat 3.50, Sugar 7.00 and proteid 1.50, but it will be Fat 3.50, Sugar 7.00, and proteid whatever amount the child can digest. The recognition of this situation will make for us an endless number of resources for simple modification of cows' milk, and will necessarily avoid the use of the bicarbonate and the citrate of soda, and of lime water, which, when used, are, we believe, a command for nature to step aside, while a nurse performs nature's work, with a drug and a spoon. I do not hesitate to say that the use of chemicals in infant feeding has been of great benefit. They have helped us through many difficult places, but we would advocate in their stead the simplest possible means of milk modification based on an appreciation of the chemistry of milk, and of the chemistry of digestion.

In speaking of the digestive capability of infants, it must be remembered that at the birth of a child, all its faculties are not developed, and that one child may be more developed at that time than another. A new born child cannot hear. It does not see much, and it is doubtful if it can smell. Is it not fair to assume, therefore, that its peptic cells do not functionate? And so chemicals ought to be regarded by pediatricists as unnecessary in respect to infant feeding, as is the use of spectacles or aurophones, or as is the use of powerful antiseptics in surgical technique. When we give up modification of milk on the principle pointed out by nature, and resort to measures no matter how scientific, or how theoretically true may be the principle upon which they are based, it is because our diagnostic abilities do not comprehend the digestive powers and requirements of individual infants—which is the great factor in the problem.

Before speaking of the practical application of our knowledge, let us recall some of the knowledge that has been handed out to us by the chemist and laboratory man. German schools, which are the home of the laboratory, in showing the value of an energy-quotient in infant food formula, have found that human milk contains 650 calories per litre, with a percentage composition of fat 3.50, sugar 6.50 and proteid 1.50, but a modified milk, with approximately the same caloric value, and having 650 calories to the litre, can be written in three ways, as:

	Fat.	Sugar.	Proteid.	Caloric Value.
1. ....	2.00	8.00	3.50	657
2. ....	4.00	6.00	1.00	659
3. ....	3.50	6.50	1.50	653

It will be admitted that Number 1 is unsuited for many babies, and it is doubtful if any child would continue to do well on either

No. 2 or 3. Besides, the question of water does not enter into this calculation at all, and, as water is a part of the weight of a child, so it must be a part of its food. So that Calorie Value of infant food cannot be the correct method upon which to base a formula. Ladd, of Boston, after feeding twenty (20) infants with the Calorie Value Theory as a basis, concludes as follows: "The Calorie Value of the food expressed either in terms of the number of calories ingested daily, or as the energy-quotient, is not the most important consideration in determining the quality of an infant's food. The nutrition of an infant depends primarily upon its power to digest and assimilate milk. These functions are best served by modifying the percentages of the constituents of milk, so as to adapt the food to the individual needs of the infant. In a given case, neither the number of calories nor the energy-quotient of the food can be positively determined by rule, but like the fats, sugar and proteids in percentage feeding, must be ascertained by experiment. The calculations of calories and energy-quotients in connection with percentage feeding can be easily made, but they add nothing in the way of information which cannot be obtained by careful observation of the gastric and intestinal functions and the weekly gain in weight."

English and American laboratory chemists, in considering that it is the inherent unsuitability of cows' casein, which is the chief difficulty in feeding, have placed before us enough facts to show that by sub-dividing the proteid of cows' milk into caseinogen and whey proteid through the agency of rennet, that a food can be obtained upon which children will thrive and gain in weight. Further, it has been shown by Dunn, of Boston, and Still, of London, that by making whey proteid and caseinogen equal in a mixture, indigestion results, and by making the whey proteid double the caseinogen, the symptoms diminish, while by constituting a formula, consisting of Fat 3.50, Sugar 7.00 and whey proteid .90, with caseinogen .25, there is a maximum gain in weight and a minimum of untoward symptoms. Any variation from this disturbs the upward progress. By application of this knowledge then, the proper proportion of the divided proteid will make a food suitable for the great majority.

It is an easy matter to order such a formula when a milk laboratory is at hand, but, unfortunately for most of us, this is beyond our reach. To this majority I would venture to suggest a practical method of feeding upon a theoretical basis. Two methods are employed. The first is to place the child upon a formula of milk, cream, sugar and water, the proportions of which will be presently discussed. The second, which is employed only, when after a trial of two weeks, during which time certain changes are made in the first for-

mula, if the child does not continue to thrive and gain in weight, is the use of whey, cream and sugar.

By the use of new milk, sweet cream (12%), sugar and water, we assume a child can digest some cows' casein, and we begin on a mixture containing a very low percentage of such. For a child of two months which should be fed every two and a half hours on 2 oz. of food at a feeding, we would write thus:

New Milk .....	3 oz.
Sweet Cream .....	2 drams.
Sugar .....	2 drams.
Water .....	add 6 oz.

This is sufficient for three feedings and will be found to contain approximately, Fat 3.50, Sugar 6.50, Proteid 1.50, and will suit a vast number of infants of this age. This formula is a memorized one, and should any of the common symptoms consequent upon unsuitable food appear, the amount of the constituents is altered to suit the apparent needs. Such needs cannot be enlarged upon in a brief paper of this kind. By shifting the portion of these constituents ever so little at times, it is surprising how many of the so-called difficult cases can be made to do well.

But occasionally one finds cases which refuse to thrive upon any change in this formula. It is then assumed that the child in question cannot digest cows' casein at all. This means that casein must be eliminated from the food altogether, and our second plan is brought into action, viz., the use of whey, cream and sugar. It is scarcely necessary to mention here how to make whey, suffice to say that new milk curdled with rennet and strained through fine muslin will make the fluid desired. Whey and cream in the proportion of 6 to 1, with sugar at the rate of 2 teaspoonfuls to 8 oz. of the mixture, is a preparation consisting approximately of Fat 3.5, Sugar 6.5, Whey Proteid 9.00, Caseinogen .25, and will successfully tide difficult cases over their difficulty. It is found suited to very young infants and for two or three months, by judicious increase of the fat constituent, produces thrift in every way. With this formula, as with Number One, there is room for endless modifications. The great point in its use is to persist long enough. It is only in cases that do not do well under this that we resort to the use of a drug. The bicarbonate or the citrate of soda may be introduced to neutralize the acidity of the whey, but is never used unless, after repeated modifications, bad symptoms persist.

It is quite impossible here to give attention to all the details of employing these methods, but after careful application of the prin-



ciple of the split proteid theory, we are convinced that it is the ideal plan for difficult cases. It may be here mentioned that the obstetrician has not performed his full duty, if, at the time of the birth of an infant, he fails to give explicit instructions as to how the child should be fed. Many a delicate digestive apparatus has been so disorganized through ignorant administration of unsuitable food, and by allowing babies for example, to suck juice from a nipple made from a raisin in a rag, that when the physician comes to deal with a child's indigestion, which is almost sure to follow, he has a task which could have been avoided had definite directions been laid down and followed from the first.

In conclusion, we will admit the plan of feeding herein subscribed is not absolutely accurate, but when tried thoroughly it will be found to meet the requirements of the great majority of cases, and, at the same time, have a measure of scientific applied theory. That each individual infant is a study in itself must be recognized by every practitioner, and changes to suit the need of each should be made for definite scientific reasons. It is a fact to be deplored that too many physicians, who, when difficulties arise, try some new mixture, regardless of its constituents, not to speak of its percentages which is poured in at one end of the digestive tract to be submitted to the alchemy of complex and dimly outlined digestive processes, and the outcome is anxiously awaited at the other to spell success or failure. To avoid this, an understanding of the pathological and physiological digestion of the elements of cows' milk is indispensable

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## A COMPLICATION IN THE DELIVERY OF MONSTROSITIES.

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BY ALEXANDER A. JACKSON, M.B., BOLTON, ONT.

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The following rare condition has recently come under my notice for the first time, and may be of interest to some:

Mrs. W., aged 31, always healthy. One child aged 5 years. Instrumental birth. Four years ago patient had some operation in the vaginal region, of what nature could not be ascertained, but judged it to be for cystocele or rectocele. Became pregnant once afterwards with child still-born.

Became pregnant about July 15th last. Was called March 5th and found labor on with only moderate pains. Abdominal palpation



showed transverse position with large head in right iliac fossa. No fetal heart sounds could be heard or fetal movements felt.

In endeavoring to convert the transverse to a vertex presentation by the combined method the os was found dilated to the size of half a dollar, with membranes protruding and shoulder presenting. During manipulation the membranes became ruptured and an abnormal amount of fluid escaped. Pains ceased immediately and did not return for fourteen hours.

On being sent for again I found the fetus once more in the transverse position. It was replaced to vertex presentation, but after two pains again took the transverse position. It was then decided to bring down a foot and deliver an after coming head at once, as the os was well dilated. The right hand was inserted into the vagina and a mass was felt presenting at the external os, very much like small intestines. A severe pain came on just then and more of the mass was forced down, leaving no doubt as to its being intestine.

I diagnosed rupture of the uterus above Baudl's ring and at once withdrew the hand, administered chloral hydrate and chloroform, raised the foot of the bed and sent for a surgeon to perform Cesarean section. This necessitated a wait of two hours. In less than one hour pains returned again and the nurse called me to come at once as "something was happening." I found a large mass of small intestines presenting through the labia. Another severe pain followed, and the buttocks of the child appeared, followed by the body and presently the head, and after-birth followed in natural sequence.

The child had a hydrocephalic head, cleft-palate, hare-lip, and ununited median ventral line from the xiphoid cartilage to the os pubis, thus permitting the intestines to come down and be diagnosed in error as those of the mother. The patient made a good recovery.

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## DOMINION REGISTRATION BILL, 1909-10.

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### AN ACT TO AMEND THE CANADA MEDICAL ACT.

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HIS MAJESTY, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

1. This Act may be cited as "The Canada Medical Amendment Act, 1910."

2. Section 2 of the said Act is amended by striking out paragraphs (c) and (d) and substituting therefor the following

“(c) ‘medical school’ includes any institution recognized by ‘a provincial medical council wherein medicine is taught.’ ”

3. Section 5 of the said Act is amended by striking out paragraph (c) and substituting therefor the following:

“(c) The determination and fixing of the qualifications and conditions necessary for registration, the examinations to be undergone, and generally the requisites for registration.”

Also by adding at the end of the said section the following proviso:

“Provided that the Council shall not determine or fix any qualifications or conditions to be complied with as preliminary to or necessary for matriculation in the study of medicine, these being regulated as heretofore by the provincial authorities.”

4. Section 7 of the said Act is amended by repealing paragraphs (a) and (b) and substituting the following:

“(a) Three members who shall be appointed by the Governor-in-Council, each of whom shall reside in a different province;

“(b) A number of members not exceeding three representing each province fixed in each case according to the number of practitioners registered under the laws of the province, as follows:

“For the first fifteen hundred or fraction thereof, two; for all over fifteen hundred, one;

“and such members representing each of the provinces shall be elected under regulations to be made in that behalf by the provincial medical council.”

Also by repealing paragraph (d) and substituting therefor the following:

“(d) Three members who shall be elected by the homeopathic practitioners in Canada, each of whom shall reside in a different province.”

Also by repealing sub-section 3 and substituting therefor the following:

“(3) No province shall be represented upon the Council until the Legislature of the province has enacted in effect that as to those who have passed the examination prescribed by the council, registration by the council shall be accepted as equivalent to registration for the like purpose under the laws of the province; and when all the provinces shall have legislated in effect as aforesaid, it shall be lawful to appoint and elect in the manner aforesaid the members of the Council; Provided that any province may at any time afterwards withdraw its repre-

sensation upon the council upon being thereunto authorized by resolution of its provincial medical council carried at a general or special meeting called for the purpose by votes of the members thereof present in person, or represented by proxy, representing not less than two-thirds of the entire membership of the said provincial medical council."

5. Section 8 is amended by striking out the word "appointed" in the first line thereof; also by repealing the second and third subsections; also by repealing the ninth and tenth lines of sub-section 4, and substituting therefor the following:

"If a representative of the homeopathic practitioners resigns, to the remaining homeopathic representatives upon the council;"

Also by striking out in the seventh and eighth lines of sub-section 7 the words "recognized distinct school of practice of medicine," and substituting therefor the words "homeopathic practitioners."

6. Section 10 of the said Act is amended by striking out the word "twenty-one" in the second subsection thereof, and substituting therefor the word "eleven."

7. Section 11 of the said Act is amended by striking out the concluding words of paragraph (b) "and the number of members necessary to constitute a quorum;" also by repealing paragraph (g) and substituting therefor the following:

"(g) The establishment, maintenance and effective conduct of examinations for ascertaining whether candidates possess the qualifications required; the number, times and modes of such examinations; the appointment of examiners, and generally all matters incident to such examinations or necessary or expedient to effect the objects thereof;"

Also by striking out the word "Canadian" in the second line of paragraph (8) of the said section, and by adding after the word "colonial" in the same line the words "other than Canadian."

8. Section 12 of the said Act is amended by striking out paragraph (a) thereof, and substituting therefor the following:

"(a) No candidate shall be eligible for any examination prescribed by the Council unless he is the holder of a provincial license, or unless he is a graduate of a medical school or university recognized by a provincial medical council, nor until he has complied with all the conditions, regulations and requirements necessary to render him eligible for examination for a license to practice medicine in one of the provinces of Canada."

9. Section 14 of the said Act is amended by striking out all the

words thereof down to the word "school," inclusive, in the fifth line thereof, and substituting therefor the following:

"The council shall make such regulations as shall secure to homeopathic practitioners who under the laws of any province possess."

10. Section 16 of the said Act is amended by adding at the end of subsection 1 thereof the words, "A majority of the Committee conducting the examination of any candidate shall speak the language in which the candidate elects to be examined;"

Also by striking out the word "and" in the third line of subsection 2, and substituting therefor the word "or."

11. Section 18 of the said Act is amended by striking out the word "six" in the fifth line of subsection 2, and substituting therefor the word "ten;"

Also by adding at the end of said subsection 2 the following proviso: "Provided that if the medical council of any province is not satisfied with the period of years prescribed by this subsection, such medical council may as a condition to provincial registration exact an examination in final subjects from practitioners registered under this subsection."

Also by striking out the word "Canadian" in the third line of subsection 3 and inserting after the word "Colonial" in the same line the words "other than Canadian."

12. The following section is added to the said Act:

"24. No amendment of this Act, or of the Act hereby amended, may be proposed on behalf of the Council unless previously accepted by the provincial medical council."



## Medicine

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GRAHAM CHAMBERS, R. J. DWYER, GOLDWIN HOWLAND, GEO. W. ROSS, WM. D. YOUNG.

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**Migraine.** By SYDNEY KUH, M.D. *Journal A. M. A.*, Feb. 10.

Kuh, like other prominent men, is a sufferer from migraine, and while giving us a *résumé* of the disease, he has failed to secure a definite cause or a cure for himself or his clientele. He ascribes little influence to causes such as gout, nasal disease, large tonsils, alcohol, nicotin, but greater power to heredity, diet, sexual indulgence, menstruation, bad air at night. Onset occurs in different ways—depression, lassitude and irritability in some, euphoria in others, while a third class has gastro-intestinal disturbance. An eyelid may droop or diplopia occur. Ansa particularly of vision are common, such as hemianopia, scintillation, scotoma, or parathesia, aphasias, or mental confusion or fear. The symptoms need not be referred to except the hypothermo of tuberculous cases and the lymphocytosis. No new therapeutic means are given. G. W. H.

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**A Case of Gumma of the Dura Indenting the Left Hemisphere of the Cerebellum, with Autopsy.** BEVERLEY R. TUCKER, M.D. *New York Medical Journal*, March 5, 1910.

Tucker's case of gumma pressing on the cerebellum is not particularly definite. A married woman of 24 had a history of headaches, and occipital pain more recently. She staggered in walking. Her deep reflexes were normal and equal, there was exophthalmos (left and right), and she had some ataxia of both hands, otherwise there were no localizing signs for the gumma subsequently found. A confusing detail was a *left dilated pupil*, due to a localized sclerotic patch in the membrane. G. W. H.

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**Some Recently Described Symptoms in Spinal Cord Tumors.** By PEARCE BAILEY, M.D., New York. *Medical Record*, March 12, 1910.

Choked disc, midbrain and cervical signs may occur in cervical



spinal growths, from secondary hydrocephalus, due either to pressure from the tumor or to associated meningitis. Circumscribed collections of fluid may be found near tumors of the cord causing errors in diagnosis of the position of the growth.

Oedema, which may be markedly severe, may occur below a tumor.

Pain may be absent, or may occur suddenly, is rarely constant at the start, and may disappear for some time, to return when cure has been proclaimed.

G. W. H.

### **The Treatment of Locomotor Ataxia.** Graeme Hammond, *Post-Graduate*, February.

Hammond advises strychnine as the best treatment, combined with modified *Fraenkel exercises*.

For one week  $1/30$  of a grain is given three times a day, then  $1/20$ , and finally  $1/16$ . At the end of the third week he gives a minim of a grain to the ounce solution with the  $1/16$  grain, and increases a minim a day up to 30 drops, i.e.,  $1/16$  grain, or a total of  $1/8$  grain a day. This is maintained for three months, and by use of the minim solution increased up to  $3/16$  grain a day. Finally he reaches  $1/2$  grain three times a day, and keeps this up for a year, and then gradually reduces it.

The treatment relieves the pains, and stops the disease, but does not cure.

The urethral treatment, and sodium cacodylate intraspinal injections were both strongly deprecated in the discussion.

Regarding this strychnine treatment, I would add that it requires the re-attention of the profession. It is extremely difficult to keep the tabetic patient satisfied with the usual drugs, as they seem to desire courses of treatment. Graeme's method appears sensible, and very easily managed, although its basis is as old as the hills.

G. W. H.

### **Tabes Dorsalis and the Ersatz-Theorie.** COLIN K. RUSSELL, *Montreal Medical Journal*.

Edinger's theory that "Function determines the symptoms" is worked out by Russell in some cases entering the Royal Victoria Hospital.

Loss of sensation in the bladder in one patient, naturally allowed prolonged retention of urine, therefore, wall overstrain, and hence, inability to empty the organ.

Over use of limbs in a second case was followed by loss of sensory cell activity, and as a result ataxia developed.

In a third Argyle Robertson pupil preceded as usual accommodative defect to distance since reaction to light is more commonly exercised than the latter function.

Finally in two cases of optic atrophy, one was due to the occupation requiring excessive use of the eyes in tailoring in a badly lighted room, while the other originated from reading by night to excess.

G. W. H.

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**Acute Anterior Poliomyelitis.** R. T. WILLIAMSON, *Medical Chronicle*.

The infectious nature of infantile paralysis is undoubted, and its great mortality among fowls is a proof of the fact. Syphilitic infection may produce a like disease. It may occur in eight forms, namely, polyneuritic, poliomyelitic, Landry-line, pontine, encephalitic, meningitic, abortive and ataxic types.

Infective signs may be the only symptoms, and of these, sweating, leucopenia and hyperesthesia of the limbs may occur early.

The tendon reflexes may precede paralysis, while spinal rigidity, retraction of the head and peripheral cranial nerve paralysis occur.

In the Westphalian epidemic, the mesenteric glands, spleen and mucous membrane of the bowel were swollen.

Diplococci and other micrococci have been obtained from the spinal fluid; in other cases negative findings are recorded, while cultivations from cord and fluid are negative.

Transplantation of cord to monkeys produced the disease, and the suspected germ is not destroyed by freezing. Urotropin is the only remedy suggested as useful.

G. W. H.

## Ophthalmology

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D. N. MACLENNAN, W. H. LOWRY.

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**Glare—Its Causes and Effect.** J. HERBERT PARSONS, of LONDON.  
*The Lancet.*

Dr. Parsons read this paper before the Royal Society of Arts in January. By glare he means the uncomfortable sensation experienced when a bright light shines directly into the eyes. It is well known that if the eyes be bandaged lightly to exclude light for about half an hour the retina reaches its maximum sensibility, that is, will appreciate a glimmer of light which will be quite invisible under any other conditions. Conversely if the retina be exposed to light it becomes less sensitive to light impressions, so that a much greater degree of change of intensity of illumination is necessary to produce a conscious impression than in the former instance. Thus he thinks that the condition of adaptation of the retina is one of the most important factors in the production of glare.

The direction of the rays plays a large part in the production of glare, and the direction from a surface upward toward the eyes, as from the sea, or a glazed sheet of paper, is the most effective. Excess of contrast causes glare, as in the instance of a motor lamp at night or the beams of light from a lighthouse. The intensity of the light or perhaps the particular form of energy in the rays of light influences the amount of glare.

In the milder forms of glare the discomfort experienced does not amount to pain, but the prolonged screwing up of the eyes and puckering up of the eyebrows will induce pain. The puckering of the brow is especially painful by squeezing the supra-orbital nerve against the frontal bone. The more marked forms of glare cause pain from the outset, and it is not improbable that the pain is due to the excitation of the sensory nerves in the cornea, ciliary body or choroid.

With regard to the effects of glare these may vary from mere discomfort to permanent scotomata with pathological changes in the retina. Various grades may be met with. There may be a mere blurring or negative after-image, which is transient, after exposure to strong light or there may be permanent blind spot, or, as is sometimes seen in the tropics or at sea, night blindness results from the severe retinal exhaustion.

W. H. L.

**Puerperal Amaurosis.** SYDNEY STEPHENSON, *Ophthalmoscope*, March.

The article contains the notes of numerous cases and does not lend itself to synopsis, but the conclusions will interest the reader. These are as follows:

1. That a form of amaurosis or amblyopia, not accompanied by ophthalmoscopic signs, or, at least, by none adequate to account for the condition, may supervene during pregnancy, parturition, or the puerperium.

2. That rarely it may assume the form of a hemianopic defect or of a central scotoma in the fields of vision, and still more rarely of hemeralopia (night blindness).

3. That it is often associated with such signs and symptoms of toxæmia as headache, edema, eclampsia and scanty urine containing albumen, casts and blood.

4. That it appears to form one of the rarer manifestations of toxæmic poisoning.

5. That it is not proved to be dependent upon uremia, although it has usually been confused with so-called "uremic amaurosis."

6. That it recovers, as a rule, completely within a few hours or days.

W. H. L.

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**A Case of Eneuresis with Hypermetropia.**

*The Lancet* notes a case of eneuresis in an intelligent girl of seven years. She developed diurnal eneuresis when she began to attend school. There was nothing locally or in her general health to explain the disorder. Hypermetropia, J. 5. 0. was corrected, all medication was stopped (this, by the way, had been tried unsuccessfully), and the girl became relieved of the troublesome condition.

W. H. L.

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**Amblyopia Following Iodoform Poisoning.**

Rolhon Duvignaud reports a case of a young man in whom, after puncture of a cold abscess in the inguinal region, iodoform and glycerine were injected, so that 6-7 gms. of iodoform were absorbed. The general symptoms of iodoform poisoning lasted ten days. Visual disturbances with optic neuritis appeared six weeks after the injection. The fundus became normal again, but a marked contraction of the visual field and a central scotoma for red and green persisted.

W. H. L.



**Trachoma.** L. J. GOLDBACH, M.D., Baltimore, in *New York Medical Journal*.

Dr. Goldbach gives a review of the recent observations of trachoma bodies which are now being considered as a factor in the causation of trachoma. Many observers have found the bodies in a large proportion of the cases, and one observer, Prowazek, found the organism or body in 90% of cases. The method Goldbach employed to demonstrate their presence is as follows: Scrapings from the conjunctiva are spread upon sterile cover slips. These are air-dried and immersed in absolute alcohol for 15 minutes, then allowed to dry, and stained by the following method: 12 parts of Giemsen's Eosin solution, 3 parts of Agar No. I., 3 parts of Agar No. II., are mixed and filtered. This is brought to a temperature of 37° C. and the cover slips allowed to float in this solution for six hours, then washed with sterile water, dried and mounted for examination. In looking for the bodies, which are difficult to find, one should look first for an epithelial cell, in which, in acute and untreated cases, the organism may be found. In the cells they appear as very minute bodies, smaller than the smallest coccus, appearing conjointly or like a diplococcus. They are usually surrounded by a clear area of cell and they stain a deep violet and at times with a pink tint. The significance of this cell invasion by the trachoma bodies is not known, but it is probably a cell degeneration, a parasitic transformation, or a peculiar attraction the cell has for them. Prowzack thinks the organism is something between a protozoa and a bacterium and puts it among the organisms that cause chicken pox, scarlet fever and hydrophobia. Attempts to make a growth of the organism on culture media have failed as yet, but Holberstädter and Prowzack inoculated the eyes of one of the orang-outangs, and in a few days they showed a typical attack of trachoma, which, upon examination, yielded similar bodies to the trachoma bodies.

W. H. L.



## Reviews

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*Pocket Therapeutics and Dose-Book.* By MORSE STEWART, JR., B.A., M.D. Fourth Edition, Rewritten. Small 32mo of 263 pages. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$1.00 net. Canadian Agents: The J. F. Hartz Co., Ltd., Toronto.

In the preparation of this the fourth edition of this very practical and helpful little book, all obsolete remedies have been eliminated, whilst new remedies, approved at large by the profession, are incorporated therein. It will be found of especial value to students, nurses and pharmacists.

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*Diseases of Children.* An Authorized translation from "*Die Deutsche Klinik*," edited by ABRAHAM JACOBI, M.D., LL.D. New York: D. Appleton & Co. Toronto: D. T. McAinsh. 828 pages. Price, \$6.00.

The name of the editor of this book, Doctor Jacobi, of New York, is a sufficient guarantee of its excellence. Based as it is upon the experience and teaching of the best German institutions and professors, it invariably gives one the very best scientific basis for the methods and treatment employed.

The subjects treated in this work are rather unusual for an American reader, but still most instructive. First of all attention is devoted to the diseases of the new-born, such as defective development, trauma during birth, and diseases of the eyes. This latter subject is fully dealt with, and the great importance of gonorrheal inflammation is emphasized.

The constitutional diseases, such as sclerosis neonatorum, are next dealt with, and the opinion is advanced that want of proper early feeding, *i.e.*, starvation, is the cause of the jaundice, the body albumin being used up.

Again, an important point is made in regard to tuberculosis. It is positively stated that the disease may be transmitted by the mother to the child in utero.

Also the danger of the infant becoming infected by insufflation method of resuscitation is pointed out.

Next, infant feeding is treated in a scientific manner, and many

helpful suggestions offered for the treatment of acute and of chronic digestive disturbances.

Much space is devoted to the nervous afflictions of childhood, convulsions, and functional diseases.

Diseases of the mouth, nose and larynx are also reviewed, and finally the infectious diseases, measles, etc.

The diseases we are accustomed in Canada to meet, such as appendicitis, diabetes mellitus, etc., are not touched upon.

To those wishing a book full of good scientific facts, and the latest pathologic anatomy of disease, there is none more acceptable than this one. The translation is ever good English, whilst retaining the spirit of the original German. The text is illustrated by over thirty illustrations and drawings; there is a complete index of authors and of subjects. The work is nicely bound and printed. To those desiring a work, scientific, accurate, and touching upon many subjects not found in the ordinary text book, one has no hesitancy in recommending this translation to them.

A. C. H.

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*Diseases of the Nose, Mouth, Throat and Larynx.* By ALFRED BRUCK, M.D. Edited and translated by F. W. FORBES ROSS, M.D., Edin., F.R.C.S., Eng., assisted by FREDERICK GANS, M.D. New York: Rebman Co. Price \$5.00. Canadian agents: J. F. Hartz Co., Limited, Toronto.

This book is intended to meet the requirements of the men in general practice. It is a most useful work for the specialist also, and is one of the best that the reviewer has read. The book is divided into four parts, each part into a general and a special section. The former describes the anatomy, physiology, methods of examination, routine of examination (anamnesis, status presens, etc.); general treatment, hygienic and prophylaxis. The special section takes up the individual diseases, shortly and concisely—perhaps too much so, so far as treatment is concerned, not many details being given, and for the minutiae of the major operative procedures, larger works must be consulted. There are some 600 pages, of which over 250 are devoted to the larynx. The illustrations are numerous and excellent. Where all is good, it is hard to particularize, but mention must be made of the section on the mouth, of the chapters on nasal reflex neuroses, on chronic laryngitis, and on affections of the voice in singers and orators.

The work needless to say is thoroughly up-to-date, and the

author warns against too great operative zeal—a warning needed, perhaps, on this side of the Atlantic.

The translators' work is well done—they "having endeavored, as much as possible, to closely follow the German text"—although one meets constantly with the split infinitive, and the expression "per orem" for "per os."

G. B.

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*Diagnostic Therapeutics.* A Guide for Practitioners in Diagnosis by Aid of Drugs and Methods other than Drug-Giving. By ALBERT ABRAMS, A.M., M.D. (Heidelberg). Consulting Physician to the Mount Zion Hospital and the French Hospital, San Francisco; formerly Professor of Pathology and Director of the Medical Clinic, Cooper Medical College (Medical Department of Leland Stanford Junior University), San Francisco. *Naturam Morborum Curationes Ostendunt.* With one hundred and ninety-eight illustrations. New York: Rebman Company, 1123 Broadway. Canadian agents: J. F. Hartz Co., Limited, Toronto.

Many subjects are common to both diagnosis and therapeutics, and as in all other branches of medicine overlapping occurs, and yet I consider it a distinct disadvantage to increase the medical library by conglomerate subject as "Diagnostic Therapeutics."

This work naturally includes under Etiology, drugs, food and other methods, all of which would be more fully taken up under Toxicology, Dietetics and Infective agents and physicial diagnosis.

"Drugs in Diagnosis" is an excellent chapter, which would make an excellent manual by itself or a good addition to a therapeutic work. Its clinical value would be greater if its details were applied to the diseases themselves.

"Methods other than Drugs in Diagnosis"—Diets, Electric Testing Gymnastics, the Vibro-Suppressor, Litten Phenomena, Heliotherapy Lavage, etc., have their proper subjects in other volumes.

The last two chapters on "Etiologic-Diagnostic Therapeutics," distilled from Medicine and "The Diagnosis of Visceral Sufficiency" from Physicial Diagnosis, are absolutely out of place even in this volume.

But while opposed to the material being used to form a new subject, yet Dr. Abrams has collected in this volume an enormous amount of valuable material, and much of it new, and knowing that he has already committed a "Physical Diagnosis" one feels that he

is preparing to present us with a marvellously complete "Therapentics," and that this volume is a "feeler."

These 1000 pages are a partial encyclopedia of medicine; it will appeal to many as a very valuable boon; it is well worth reading. The accumulated facts are in many cases beyond one's easy finding elsewhere, and yet I feel that Dr. Abrams can make his "Physical Diagnosis" more modern by including much he has left out and placed in here, and by preparing Abrams' "Therapentics," which will contain the rest.

G. W. H.

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*The Sexual Life of Woman.* By HEINRICH KISCH, M.D. Translated by M. EDEN PAUL, M.D. New York: Rebman Company. Canadian agents: J. F. Hartz Co., Limited, Toronto.

This is a work of value chiefly to the gynecologist or family physician. Many subjects are treated which concern only the most secret workings of the family affairs.

Many of the subjects treated doubtless come to the attention of physicians, and much good may be obtained by physicians in reading it. The work is, I take it, only intended for the profession, as outside of them the work would certainly be considered unsuitable for the general public. It may be of value, however, to some, but that is doubtful.

A. C. H.

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*Epidemic Poliomyelitis.* Report of the Collective Investigation Committee on the New York Epidemic of 1907. (*Journal of Nervous and Mental Disease*, Monograph Series No. 6. 64 West Fifty-Sixth Street. New York: 1910. Pp. 119. \$2.00.)

This valuable brochure is an account of an investigation made by a committee of thirteen who were appointed by the New York Neurological Society and Academy of Medicine; five sub-committees were formed to study the epidemiology, conditions of onset, symptomatology, pathology and treatment of the disease respectively. It is stated that "at least two thousand five hundred cases occurred in New York and its vicinity during the summer and autumn of 1907." A complete account of 752 cases was obtained. Of the conclusions stated by the different committees the following may be quoted: "It was impossible to discover any susceptibility to the disease according to nativity in the cases reported. The disease was moderately communicable; about as much so as epidemic cerebrospinal meningitis. Among the most marked features of this epi-



demic were the irritative nervous (i.e., meningeal) symptoms at the time of onset and during the first few days, giving rise frequently to great difficulty of diagnosis. In seven cases no paralysis was observed until the twenty-first day; it occurred within the first week in 60 per cent of the cases. The lower extremities were the first affected in 370 cases, the upper in 83; paralysis of the back was noted in 24 per cent., of the abdominal muscles in 6 per cent. Babinski's sign was found on both sides in 14 cases, one side in 19." The treatment is adequately discussed from every point of view, and the chapter on pathology is exceedingly valuable. It has been shown that the virus obtained from the human spinal cord can set up acute poliomyelitis in monkeys, and that the disease can then be transmitted from animal to animal indefinitely; the sub-dural route of inoculation is the most reliable, but others are successful. The virus resides in the brain, but has not been demonstrated in the cerebro-spinal fluid. It is probably protozoal, and not bacterial; it is closely allied to the virus of rabies.

The whole volume is well written, and the multitude of observations are excellently arranged and interestingly presented. The committee and editor deserve the highest credit for a valuable contribution to an important subject. In view of the fact that this disease is still so prevalent we can cordially recommend the book to general physicians; to those specially interested in poliomyelitis it is indispensable.

E. J.

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*Symptoms and Their Interpretation.* By JAMES MacKENZIE, M.D., M.R.C.P.; Physician to the West End Hospital for Nervous Diseases, London; Author of "Diseases of the Heart," etc. Toronto: D. T. McAinsh & Co. 297 pages. Illustrated. Price, \$2.25.

MacKenzie, of Burnley, has already charmed us with that classic book on Heart Disease, which on this particular subject has become practically a medical bible, and has developed all over the world a new means of study, besides engrafting on all our minds the fact that heart muscle is the prime basis from which to consider all cardiac changes.

MacKenzie, of Burnley, has essayed to give us another culture from his wide field of experience, and he has taken as his subject the great undecided question of Visceral Sensation.

He does not believe in sensations of pain being directly carried cerebralwards from the viscera, but reflex tracts motor or sensory



in close nervous relation to the viscera affected are rendered hypermotile or hypersensitive, and it is from these referred areas that we receive our critical impressions. This idea is broadened and carried to a conclusion in many different systems, but its value, both to ourselves and to MacKenzie himself, is mainly from its application to those vexing problems in connection with abdominal pain.

From a large experience he relates and describes the areas in which pain was felt by the patient, the hyperesthesia that accompanied it and the actual organic disease found at operation or post-mortem. Admitting Mackenzie is correct in his vast number of cases, yet that does not absolutely prove his contention of visceral unconsciousness, and each practitioner must swell the field with his cases for and against.

He who fails to read this book is missing not only interest but some good means of aid in his everyday diagnoses.

G. W. H.

# Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

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GEORGE ELLIOTT, MANAGING EDITOR

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## COMMENT FROM MONTH TO MONTH.

**Canadian Medical Association.**—For the purposes of transportation in connection with this Convention, on the 1st, 2nd, 3rd and 4th of June, in Toronto, the Canadian Dental Association has been coupled, so that if three hundred are in attendance holding Standard Convention Certificates at both, return fare will be free.

The Standard Convention Certificate plan prevails as far west as Laggan and Coleman, B.C. From North Pacific Coast points there is a tourist rate with extended time limit. Intending delegates require no special certificate from the General Secretary, but when purchasing first-class transportation to Toronto should ask for Standard Convention Certificates for themselves, wives or daughters (no others). These, when signed and viséd (fee for viséing, 25c.), in Toronto will entitle holders to reduced transportation returning. Consult ticket agents as to dates of sale of tickets, time limits, steamboat arbitraries, routes, etc. East of Port Arthur three days (not including Sunday) before meeting are allowed and three days after. The C.P.R., G.T.R., C.N.R., Intercolonial, and the navigation companies join in the arrangements.

Dates of sale of tickets, Winnipeg to Emerson and East, May 27th to June 1st; west of Winnipeg to Moose Jaw and Saskatoon, including branches, May 26th to May 31st; west of Saskatoon and

Moose Jaw to Coleman and Laggan, B.C., including branches, May 25th to 30th. Certificates will be honored at Toronto up to and including July 1st.

The place of meeting of each section will be plainly marked on the plan at the entrance to Convocation Hall, and admission to each will be by ticket only.

The exhibits of the various sections, and by leading manufacturers of articles of interest to the profession, will be placed in the approaches to Convocation Hall and the Official Bureaus of the Association.

Members are invited to inspect these thoroughly.

The Queen's Hotel will be the headquarters of the Association. Delegates should make reservations immediately.

The fee for membership is \$5.00. Pay to Treasurer, Dr. H. B. Small, Ottawa, at any time. New members should apply at meeting when registering for Application for Membership forms. They must be recommended by two members of the Association. The transportation arrangements apply to them as to members.

On the afternoon of Thursday, 2nd June, there will be an excursion by steamer *Turbinia* to Port Dalhousie; thence by electric railway to Niagara Falls. Refreshments on boat; dinner at the Clifton House; returning to Toronto in evening. There will also be an excursion by special C.P.R. train to Guelph, as guests of the Guelph Medical Society, to visit the Ontario Government institutions, and other points of interest, leaving Toronto at 11 a.m. on Saturday.

The General Secretary, Dr. George Elliott, 203 Beverley Street, Toronto, will be pleased to furnish promptly any further information required.

The annual meeting of the Canadian Medical Protective Association will be held on Friday afternoon at 5.30 p.m., when its President, Dr. R. W. Powell, Ottawa, will submit his annual report.

Dominion Registration—This discussion will be introduced by Dr. Roddick on the evening of the first day, following the address in Medicine.

In addition to the Presidential Address, there will be one in Medicine by Dr. Herringham, of London, England; one in Surgery by Dr. J. B. Murphy, of Chicago, and a third in Gynecology by Dr. Henry C. Coe of New York.

The Milk Commission will report on the afternoon of the first day, and several leaders in this field from the United States will contribute to the discussion.

Two Symposia have been arranged, to which the various sections

will contribute: one on Exophthalmic Goitre, the medical aspect of which will be treated by Prof. McPhedran, of Toronto, the Surgical by Prof. F. J. Shepherd, of Montreal, and the Pathological by a gentleman from New York; and another on Psycho-Neuroses, of which Drs. J. J. Putnam, of Boston; August Hoch, of New York; W. Hattie, of Halifax and Ernest Jones, of Toronto, will each present various aspects.

Medical Education will be dealt with by Prof. J. C. Connell, of Queen's University, Kingston.

All of the above will be given in the Convocation Hall during the afternoon or evening sessions before all the members.

There will be Sections in Medicine, Surgery, Obstetrics and Gynecology, Pathology, Pediatrics, and Diseases of the Eye, Ear, Nose and Throat. These will be held each forenoon. Most extensive programmes have been prepared for each, some seventy papers in all being already promised. The Sections in Medicine, Surgery, Obstetrics and Pathology will each hold three morning sessions, *commencing at 9.15 on Wednesday the first of June*. The attention of members is especially called to the hour of meeting so that there may be no disappointment. The Section of the Eye, Ear, Throat and Nose, and the Section on Pediatrics, will each hold one session only, viz., on Thursday the second of June.

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**To Mention Dominion Registration** is to think of Dr. Roddick, and to mention Dr. Roddick is to bring into mind Dominion Registration. Dr. Roddick's name and work have so long been identified with this important matter that the two are inseparable. It is just as certain that Dr. Roddick would wish to round off his lifework by establishing Dominion Registration as the profession throughout Canada would wish that his would be the hand that would bring it about.

The position of the matter at the present time is that there is no hope of legislation at the present session of Parliament, owing, we understand, to British Columbia members of the Special Committee of the Canadian Medical Association wishing to submit the proposed amendments to the Canada Medical Act to the Medical electorate of the Pacific Province.

The five-province clause, almost unanimously favored by the meeting at Winnipeg last August, has been abandoned; and the period of the "retroactive" clause has been advanced from "six" to "ten" years. This means that a person properly qualified to practice in any one province may be registered to practice without



examination anywhere in the Dominion of Canada after he has been engaged in practice ten years.

As the matter is to be presented at the Canadian Medical Association in Toronto on the evening of June 1st, and as there is to be ample time for full and extended discussion, it is hoped all the members of the Special Committee will be present, as well as those who acted with the Committee from the Medical Councils, in Montreal, last November.

On another page we publish the proposed amendments in full.

This is a question so long on the boards that the profession throughout Canada will expect matters will this time be adjusted satisfactorily, and Dominion Registration finally and effectively established.

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**The Departure of Dr. Charles Sheard** from the position of Medical Health Officer of Toronto is a loss to the city which cannot at the present time be correctly or properly adjudged.

A fearless and brilliant administrator, he conducted his department of civic government with such splendid success that leaves nought but an exceedingly difficult path for his successor to tread.

Ever watchful and eternally vigilant in the interests of the public health of Toronto, there is not a single spot in the administration of his office to the wrong side of his account.

A professional man, a doctor of medicine, he has proven his ability as a high-class business man; and it is a question if he was not far too big for the position he so long filled to the satisfaction of the community.

Being an eloquent platform speaker and debater, probably the best in the medical profession in Canada, his talents eminently qualify him for front rank in the Parliamentary halls of his country.

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### PROVISIONAL PROGRAMME—CANADIAN MEDICAL ASSOCIATION.

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Address—Dr. W. A. Evans, Chicago.

Address—Dr. Charles E. North, New York.

Symposium on Exophthalmic Goitre—Medical Aspect, Prof. McPhedran, Toronto; Surgical Aspect, Dr. F. J. Shepherd, Montreal.

Symposium on Psycho-Neuroses—Dr. J. J. Putnam, Boston; Dr. August Hoch, New York; Dr. W. Hattie, Halifax; Dr. Ernest



Jones, Toronto. Discussion by Drs. C. K. Clarke and Helen MacMurehy, Toronto.

The Psycho-Neuroses from the Standpoints of the Neurologist—Dr. Joseph Collins, New York.

Medical Education—Dr. J. C. Connell, Kingston.

Typhoid Carriers—Dr. W. T. Connell, Kingston.

A Discussion of the Causes Interfering with the Regular and Continuous Development of the Child—Dr. A. D. Blackader, Montreal.

Anterior Poliomyelitis—Dr. C. K. Russel, Montreal.

Diphtheria—A. H. Gordon, Montreal.

Title to be announced—Dr. D. A. Shirres, Montreal.

Orthostatic Albuminuria—Dr. Graham Chambers, Toronto.

Treatment of Aene Vulgaris by Vaccines—Dr. Geo. W. Ross, Toronto.

Title to be announced—Dr. R. D. Rudolf, Toronto.

Title to be announced—Dr. A. R. Gordon, Toronto.

Title to be announced—Dr. R. J. Dwyer, Toronto.

Title to be announced—Dr. W. F. Hamilton, Montreal.

Patent Medicines—Dr. John Ferguson, Toronto.

Sudden Attacks of Pain in the Pyloric Region—Dr. Goldwin Howland, Toronto.

A Comparison of the Results in Pulmonary Tuberculosis in Institutions and Private Practice—Dr. J. H. Elliott, Toronto.

The Blood in Pulmonary Tuberculosis—Dr. A. F. Miller, Kentville, N.S.

Experimental Intra-Thoracic Surgery, with a Résumé of Recent Progress in the Use of the Differential Pressure Apparatus—Dr. Von Eberts, Montreal.

Gangrene—Dr. E. W. Ryan, Kingston.

Perforation of the Intestines in Typhoid Fever—Dr. Geo. E. Armstrong, Montreal.

Appendicitis in Children—Dr. T. Wood.

Duodeno-choledochotomy, with Report of a Case—Dr. Jasper Halpenny, Winnipeg.

An Interesting Case of Diaphragmatic Hernia—Dr. J. M. Cotton, Toronto.

Fractures about the Elbow Joint—Dr. W. E. Gaillie, Toronto.

Tumor of the Cerebrum, with Presentation of Patient—Dr. Geo. A. Bingham, Toronto.

Title to be announced—Dr. Murray MacLaren, St. John, N.B.

Title to be announced—Dr. Ingersoll Olmsted, Hamilton.

Title to be announced—Dr. Gibson, Sault Ste. Marie.

Title to be announced—Dr. W. G. Turner, Montreal.

Title to be announced—Dr. A. Mackenzie Forbes, Montreal.

The Neurasthenic Conditions: Referable to the Eye, Ear, Nose and Throat—(a) The Eye, Dr. R. S. Minnes, Ottawa; (b) The Ear, ———; (c) Nose and Throat, Dr. Jamieson, Montreal. Discussion by J. P. Morton, Hamilton.

Nasal Polypi—Dr. C. C. McCullough, Fort William. Discussion by Dr. Geoffrey Boyd, Toronto.

The Diseased Tonsil—(a) Its Effects upon the General System, Dr. W. P. Caven, Toronto; (b) Its Surgical Treatment, Dr. J. G. Sutherland, St. Catharines. Discussion by Dr. Price-Brown, Toronto.

Trachoma—Dr. H. S. McKee, Montreal.

Title to be announced—Dr. R. H. White, Montreal.

Reflex Nasal Neuroses—Asthma, Hay Fever, Paroxysmal Sneezing, Dr. C. M. Stewart, Toronto.

Ectopic Gestation—Dr. Munroe, Saskatoon, Sask.

Obstetrical Technique—Dr. Bogart, Kingston.

Obstetrical Diagnosis—Dr. Little, Montreal.

Title to be announced—Dr. Evans, Montreal.

Early Diagnosis of Uterine Cancer—Dr. A. C. Hendrick, Toronto.

An Attempt to Produce Immunity to Scarlet Fever—Dr. Wm. Goldie, Toronto.

Pericarditis in Children, with X-ray Photographs—Dr. Jos. S. Graham, Toronto.

The Operative Treatment of Congenital Hydrocephalus—Dr. Edward Archibald, Montreal.

Examination of Fæces and Urine for Typhoid Bacilli, Especially in Typhoid Carriers—Dr. W. T. Connell, Kingston.

Title to be announced—Dr. C. P. Howard, Montreal.

Title to be announced—Dr. J. J. McKenzie, Toronto.

Title to be announced—Dr. T. G. Brodie, Toronto.

The Estimation of Nitrogen and Ammonia in Urine—Dr. J. B. Leathes, Toronto.

Trachoma Bodies—Dr. W. H. Lowry, Toronto.

Rabies—Dr. J. A. Amyot, Toronto.

Title to be announced—Dr. A. H. Caulfield, Gravenhurst.

A Critique of the Wassermann Reaction and Its Modifications—Dr. J. G. Fitzgerald, Toronto.

The Bacteriology of *Acne Vulgaris*—Dr. Geo. W. Ross, Toronto.

Interpretation of Public Health Laboratory Reports—Dr. D. G. Revell, Edmonton.

The Occurrence of a Fat Splitting Ferment in the Urine in Cases of Pancreatitis—Dr. Edward Archibald, Montreal.

Title to be announced—Dr. C. B. Keenan, Montreal.

Some Notes on the Biology of the *Uncinaria Americana*—Dr. F. B. Gurd, New Orleans.

Concerning the Development of the *Spirochætæ Duttoni*—Dr. J. L. Todd, Montreal.

Typhoid Meningitis—Dr. W. J. McLachlin, Montreal.

Title to be announced—Dr. S. B. Wohlbach, Montreal.

The Action of Drugs on the Salivary and Bronchial Secretions—Drs. A. H. Taylor and V. E. Henderson, Toronto.

Title to be announced—Dr. J. C. Beatty, Gravenhurst.

The Clinical Estimation of the Coagulation of the Blood—Dr. R. D. Rudolf, Toronto.

Biliary Cirrhosis of the Liver—Dr. O. R. Mabee, Toronto.

The Clinical Examination of Fæces—Dr. F. W. Rolph, Toronto.

Congenital Cardiac Disease—Drs. Maude E. Abbott and Joseph Kaufmann, Montreal.

## News Items

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SIR JAMES GRANT, Ottawa, will spend the summer abroad.

DR. JAMES THIRD, Kingston, will sail for Europe in June.

CANADIAN MEDICAL ASSOCIATION, Toronto, June 1st-4th, 1910.

DR. MURRAY MACFARLANE, Toronto, has been visiting in Atlantic City.

DR. F. N. G. STARR, Toronto, has been visiting in Washington, D.C.

PROF. J. J. MACKENZIE, Toronto, has returned from a trip to Washington, D.C.

A COUNTRY practitioner desirous of moving to Toronto will hear of a good practice and property for sale by applying to this office.

DR. CHAS. J. HASTINGS, Toronto, has returned from a trip to Victoria, Vancouver and Prince Rupert, much improved in health.

THE attention of our readers is drawn to the programme of the Canadian Medical Association on other pages.

AT a late date standard certificate plan has been put in force for British Columbia for the C. M. A. meeting.

A COUNTRY practitioner desires to dispose of a good \$4,000 practice and property. For particulars apply this office.

DR. ADAM H. WRIGHT, Toronto, President of the Canadian Medical Association, will sail for Europe on the 18th of June.

DR. A. A. MACDONALD has been elected President of the Toronto Academy of Medicine, and Dr. Harley Smith, Hon. Secretary.

DR. W. A. YOUNG, Toronto, President of the American Medical Editors' Association, will leave for the annual meeting in St. Louis on the 2nd of June.



DR. HENRY C. COE, New York, is to deliver the address in Gynecology at the meeting of the Canadian Medical Association on the evening of the 3rd of June.

THE Canadian Medical Protective Association will hold its annual meeting in Toronto at 5.30 p.m., June 3rd, in the Auditorium of Convocation Hall, University of Toronto.

DR. GEO. D. PORTER, Toronto, travelling medical secretary of the Canadian Association for the Prevention of Tuberculosis, while in British Columbia is a guest of Dr. C. J. Fagan, of the Provincial Board of Health.

THE President of the British Columbia Medical Association, Dr. R. W. Irving, Kamloops, B.C., would be glad to learn of any Eastern men who will visit the Pacific Province in August, as their annual meeting is fixed for August 16th and 17th, 1910.

ON the Canadian Pacific and Northern Navigation steamboats (Upper Lakes) the following arbitraries will be in force for Canadian Medical Association meeting in Toronto, June 1st to 4th: Going rail, returning boat, \$8.50 additional; going lake, returning rail, \$3.50 additional; both lake trips, \$12.50 additional.

MEMBERS of the Canadian Medical Association, as well as members of the Canadian Medical Protective Association, will learn with sincere regret that Dr. R. W. Powell, Ottawa, has not been in good health recently. Dr. Powell has not missed an annual meeting since the last meeting in Toronto in 1899, when he was elected President; and all will hope he will be able to be with us this year as usual, in the enjoyment of his usual good health.

THE following manufacturing firms will exhibit at the coming annual meeting of the Canadian Medical Association in Toronto, June 1st to 4th, 1910: Henry K. Wampole & Co., Perth, Ont.; Charles H. Philips Co., New York; The Denver Chemical Mfg. Co., New York; J. B. Lippincott Company, Philadelphia and Montreal; The Waterbury Company, Toronto; Burroughes, Wellcome & Co., London, Eng., and Montreal; Fairchild Bros. & Foster, New York; Gilmour Bros., Montreal (Horlick's Malted Milk); Brand & Co., London and Montreal; Abbott Alkaloidal Co., Chicago (W. Lloyd Wood, Toronto); The Wingate Chemical Co., Montreal.

## Publishers' Department

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EVILS OF MAL-NUTRITION.—Disturbances of nutrition are the most frequent causes of chronic diseases, and again have the appearance of various illnesses of an acute character. Diathesis is a permanent disturber of nutrition, which prepares, provokes, and maintains different diseases, as seen in their location, their evolution and pathological process. The reaction of a disturbed nervous system, induces temporary disturbances of nutrition. If nerve reaction, by corrupting nutrition of the moment, can produce the morbid opportunity, it may also modify nutrition in a lasting manner and develop diatheses, but it will be acquired diatheses. The diathetic nutritive disorder is more than a morbid threatening; it is disease in activity. Here is an arthritic. How soon will he be seized with an attack of gout? What explains and links the attacks together is precisely this diathetic state, which is the result of a failure of nutrition. Before every illness there is a disturbance in life, for nutrition is life. Digestion requires that the foods should be not only softened, but thoroughly adjusted and normally assimilated. The patient, taking no combustible material from without, thrives upon his individual tissues. He finds that it is impossible for him to properly digest. He cannot, therefore, normally nourish like other individuals, and it is here that the physician tries, by various means, to introduce into his organism, combustible material and not allow him to consume his own tissues. It is now admitted that in the course of infectious diseases there exists a perversion of the nutritive process. As the results of the derangement of nutritive processes, there are various conditions of dissimulation, disease is likely to arise from derangement of the nutritive functions. When normal nutrition is lowered, as in gouty and obese patients, certain nerve conditions are likely to develop, such as dejection, melancholy, a lack of desire for work and migraine, and it is frequently observed in the renal, cutaneous, the pulmonary excretions and incomplete oxidized products of dissimulation. In all forms of auto-infection and disease the result of mal-nutrition, bovine feeding is an able prop to both the patient and physician in the handling of his case, for it stimulates the normal flow of the digestive fluids, encourages proper assimilation, and supplies all elements of nutrition to meet the demands created by the stimulation, thereby fortifying the system in overcoming the mal-nutrition and enabling Nature to attack the auto-intoxication and disease through natural methods.

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NOT INCOMPATIBLE.—In an original article written for *Medical Reprints*, Dr. George Selkirk Jones writes:—"Another, and most important, subject for study will be that of incompatibility with respect to Antikamnia. At present I have not encountered this difficulty, for in the treatment of rheumatism, for example, with alkalies and potassium iodide, the occasional use of antikamnia tablets appears to act as a most useful auxiliary, and a quiescent condition of nerve, brought about by the action of the latter, appears to predispose towards a more perfect metabolism. In this respect I believe that antikamnia tablets are destined to play a new and important role in medical therapeutics, for if a nerve-storm can be controlled during the course of a painful malady for which the appropriate remedies are being exhibited, the chances are that the simple alleviation of pain for the time being may greatly facilitate the removal of the original cause of the malady. I have a case on hand at present in which this new feature is presented, viz., hemierania in a woman, the result of periodic attacks of hepatic congestion, nothing appearing to influence the portal circulation so satisfactorily as *cascara sagrada*. This latter was taken at regular intervals during the day, whilst a single dose of two antikamnia tablets taken at bedtime produced in the mind of my patient a doubt as to which remedy was entitled to the credit. On my part I can attribute the good results already obtained to both, each having its allotted task to perform, the one hepatic, the other central, or neurotic. And so with reference to rheumatism, I am looking forward to a like happy experience. Why should the administration of iodide of potassium or salicine interfere with the action of antikamnia? At present I see no reason, but, on the contrary, shall continue to prescribe the latter as a "night cap," whilst relying upon the therapeutics of anti-rheumatic remedies."

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ACUTE INTESTINAL OBSTRUCTION.—J. W. D. Maury, New York (*Journal A. M. A.*, January 1), distinguishes between pathologic death, particularly that induced by bacterial agents, and physiologic death, that form of dissolution of somatic energy that follows parathyroidectomy, and that associated with adrenal and pituitary lesions, and takes up the latter, including in it that dissolution of somatic life brought about by the mechanical interference with the detoxication of the normal secretions of the body. Such, he says, seems to him, after careful thought, to be the probable condition which obtains in the duodenum when the normal current of the intestines is blocked. It has been suggested by Welch, when com-





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menting on the preliminary reports of the investigation, that the experiments strongly suggest an actual internal secretion from the duodenum. It may take years to make the conclusion to which he thinks his experiments may lead scientifically acceptable, and he submits his present account of his work more for the importance of the idea than for other reasons. He asks to be allowed to start with the hypothesis that the obstruction causes no ill-effect save through an interference with the physiologic balance of the duodeno-jejunal secretions, and is purely physiologic. The nervous shock, which is more pronounced from cutting the intestine at this point than further down, is transitory, and experience has shown that it is not dangerous. It is therefore, he thinks, negligible as a cause of death. The bacterial infection causing pathologic death from wounds of the intestine are not frequent when the injury is in the duodeno-jejunal region. Bacteria are not found in the blood as a result of obstruction in this part. This is because the bacterial flora of the duodenum is very slight, and because death usually occurs before there is much, if any, impairment of the intestinal wall in these cases. Much has been attributed to the decomposition of food, but experience has shown that if the stomach and duodenum had been emptied, death occurs just the same. It was accidentally noticed in a series of experiments for creating a delayed gastroenterostomy, that closure of the oral portion of the intestine (duodenum) almost always caused death before the cutting through of the delayed enterostomy by the McGraw ligature employed. Somewhere between the thirty-sixth and seventy-second hour, the experimental animals were seized with symptoms peculiarly resembling those of parathyreopriva, and frequently died in less than eighteen hours, the course from post-operative seeming health to death being usually very short. It was found that death would not occur in a medium-sized dog if the obstruction lay more than 35 cm. aboral to the pylorus, the addition of a relatively short portion of the jejunum to the oral loop sufficing to prevent the dogs from dying within this short period. It would seem either that the jejunum mucosa had the property of absorbing the poisonous products from the duodenal region, and in some way rendering them harmless, or else it secreted an enzyme which acted as an antibody for the poisonous products. His experiments also proved that the bile did not enter as a factor into this physiologic death, but that, quite irrespective of this, a large proportion of the dogs lived when the pancreatic secretions drained aborally, and that they died under stoma control when it was confined in the oral loop. We must however not forget that the secretions of the gastric mucosa may also be toxic, and that this toxicity may be

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greatly increased by an oral intestinal obstruction; but he thinks it fairly established that a toxemia developing from a disturbance of the duct-bearing portion of the duodenum contains poisons of an exceedingly grave nature. Without suggesting that trypsin alone is responsible for this physiologic death, he mentions it as one of a class occurring in the duct-bearing portion of the duodenum, the antibodies to which have been definitely found. The hypothesis offered in this paper is that duodenal secretions of either intra-enteric or extra-enteric origin, were, in their disturbed function, responsible for the death following duodeno-jejunal obstruction. Some such hypothesis is needed to explain the singular syndrome of symptoms, as well as the singular protective power of the first thirty-five centimetres of the intestine, the presence of which in the oral loop suffices to prevent death before the opening of the stoma control. Two therapeutic considerations are offered. One is, that the lesion is an outer toxic one, and the source of the toxemia is in the duodenum. The second is, that the blood must be filled with the toxic products whatever they are, and that the modern method of bleeding followed by transfusion from a healthy individual is indicated. He also suggests a third, namely, that a protective serum may possibly be developed from the long loop dogs, i.e., when the obstruction is lower than the duodenum in the intestine. The paper concludes with several references to other investigations, which may be taken as supporting or favorable to the hypothesis here offered.

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THE THERAPEUTIC UTILIZATION OF BILIARY FISTULAS.—L. L. McArthur, Chicago (*Journal A. M. A.*, January 1), having noticed the loss of water in irrigating biliary fistulas, conceived the idea of studying the effects of various fluids introduced through this route into the duodenum. First, as a means of deluging the system with water, he found that a temporary fistula may often be utilized with surprisingly good effects. He has repeatedly injected in such cases, by continuous irrigation of a warm salt solution up to 3,000 c.c. of fluid as a means of flushing out the kidneys, clearing up a jaundice or filling up the blood vessels, and in one case, even added dextrose as supplying the food calories most readily assimilable. He is not recommending a cholecystostomy as a therapeutic measure for other ailments than those for which it was originally designed, but simply the utilization of already existing fistulas for indications similar to those mentioned.



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## Original Articles

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### SURGICAL COMPLICATIONS OF TYPHOID FEVER.\*

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By J. A. GUNN, M.D., WINNIPEG.

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During the past twenty years or more, probably no disease has been of such common interest in the West to the medical profession and the public generally, as has Typhoid Fever, of which something like 5,000 cases have been treated in the Winnipeg General Hospital alone.

Out of a series of such extent, many interesting surgical complications might be recorded, but the scope of this paper will permit me to deal with only a few of the more important.

Without any doubt, the most common of the grave complications is perforation, which occurs in from 2 to 3 per cent. of all cases of typhoid, and to which is due fully one-third of the total mortality of the disease. The feature which renders it of special interest to the surgeon is its amenability to surgical treatment alone, and the constantly decreasing although still alarmingly high death rate even with the most approved surgical treatment.

In the series of cases above mentioned, there has been the usual number of perforations, but I wish to refer only to those cases which occurred during the past twenty months—my term of residence in the hospital. During this time I have had the opportunity of seeing 12 cases, 11 of which were operated upon with three recoveries. The remaining case refused operation, but the diagnosis was confirmed at autopsy.

The patients were all males, ranging from 20 to 43 years of age:

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\*Read at the annual meeting, Canadian Medical Association, Winnipeg, August, 1909.

10 being under 30. The average time after the onset of the disease in the 8 cases in which this is recorded was 22 days, while the average stay in the hospital before perforation occurred was 13 days. Of the fatal cases, the average length of time the patient lived after the operation was three days, one case living eleven days. Between the sudden pain, which we may assume marks the occurrence of perforation, and the operation, the average time was thirteen hours, although seven were operated on within six hours, two of these successfully. The other successful case was not operated upon until 27 hours after the first symptom.

The type of disease may be classified as moderately severe in the majority of cases, although in at least three cases no grave symptoms could be noted previous to the perforation. In three cases hemorrhages had occurred; distension was present in five cases; delirium in two.

In only one case could any indiscretion in diet be found as a possible cause. In this particular instance the patient was at about the end of the third week of the disease, which was of that type characterized by a severe toxemia. He had been kept on sterile water during his stay of eleven days in the hospital, when a friend smuggled him in an orange, and this addition to his dietary was soon succeeded by profuse and repeated hemorrhages, and finally perforation.

Of the symptoms which are usually described as accompanying this condition, only one was uniformly present, viz., pain in the abdomen. In every case the onset of the pain was sudden, and in almost every case so severe as to cause the patient to cry out. A few hours after the onset the severity of the pain was frequently considerably diminished, so that one examining the patient then might have hesitated in making a definite diagnosis. Tenderness and rigidity were usually present before perforation, but in six cases no rigidity could be detected for from 30 minutes to several hours after onset of pain. In only two cases was vomiting a symptom. Liver dullness was absent in one case only.

In the majority of cases a slight increase in the rapidity of the pulse rate followed the onset of pain within a very short time, and progressed if operation was delayed. There were, however, some notable exceptions to this rule. In one case the pulse rate decreased from 92 to 78, and remained practically stationary for about 24 hours, when it commenced to rise, and soon reached 128. The decrease in the pulse rate, together with the subsidence of the pain, delayed the diagnosis, and hence also the operation. With the increase in the pulse rate, a definite diagnosis of perforation was made, and at the operation an exceptionally large perforation was

found with advanced peritonitis, which proved rapidly fatal. In another case there was no perceptible change in the pulse rate during the first twelve hours. In three cases the pulse rate increased not more than 10 or 12 beats per minute before operation.

The temperature records are by no means uniform. In four cases there was practically no change; in five there was a slight rise; in one case a sudden rise of several degrees, and in two the temperature fell.

Autopsy was obtainable in only 3 of the cases. In the case in which operation had been refused a perforation was found nine inches from the ileocaecal valve. In another case, one which had survived the operation four days, there was no evidence of general peritonitis. The perforation was perfectly closed, but the lower two feet of the ilium was very dark in color, and in an extremely ulcerated condition. The other case was one which had lived 11 days after operation. To relieve the extreme distension and post-operative ileus, an artificial anus had been made on the left side 6 days after first operation, with only temporary relief. The perforation was closed, but a sinus leading down from the artificial anus to the pelvis allowed considerable feces to escape in this direction, and this was the direct cause of the fatal termination.

The leucocytic counts were very variable. In four cases, one of which recovered, there was a leucocytosis varying from 14,800 to 28,400, with a percentage of polymorphonuclear cells ranging from 80 to 94. Successive counts in one case showed a lessening leucocytosis, while in another it was increasing. In four other cases, one of which recovered, the number of the leucocytes was normal or below normal, and successive counts showed the number to be decreasing.

The condition of shock which it is sometimes claimed immediately follows perforation, and should be an indication for delaying operation, was not noticeable in any case in this series.

The treatment adopted varied but slightly in the different cases. In one, operation was performed under local anesthesia, while in all the others a general anesthetic was administered. In one case the abdomen was closed without drainage. Following operation, patients were put in the modified Fowler position, and continuous saline proctoclysis instituted.

The conclusions arrived at from a study of this series of cases may be briefly summed up as follows: The classical picture of perforation in typhoid fever is rarely, if ever, seen, except in cases in which operation has been unduly delayed. A perforation may occur as early as the eighth day of the disease, but usually occurs toward the end of the third week. A sharp pain in the abdomen

coming on suddenly should be regarded with the gravest suspicion, and if no other cause can be found, one is justified in making a tentative diagnosis of perforation and treating it as such, even without any other symptom. If added to this there is rigidity or tenderness, the diagnosis may be made positive.

The leucocytic count, or at least our present interpretation of it, is entirely unreliable.

The essential point in treatment is early operation, and nothing should be allowed to interfere with this procedure. To wait for positive symptoms is to court failure. "When in doubt, OPERATE," should be the surgeon's motto in these cases. If no perforation be found, which will be very exceptional, the operation need only be very brief and practically void of danger.

During the period covered by the above series, two cases were operated on in which the diagnosis was found to be incorrect. One proved to be a ruptured pulmonary abscess, while in the other no abnormality could be found, although there had been the sudden pain, tenderness, extreme rigidity, rise in temperature and pulse rate. This case made an uneventful recovery.

Although cholecystitis is now found to occur fairly frequently as a complication or sequel of typhoid, it is only within comparatively recent years that typhoid has been recognised as a causal factor, Bernheim, in 1889, being the first to call attention to the possibility that the typhoid bacillus might cause gall stones.

It is now definitely known that typhoid bacilli are nearly always present in the gall-bladder during the course of the disease; that they may persist for many years after an attack, and that they occasionally form the nucleus of gall stones.

The time of onset varies greatly, but it is usually later on in the course of the disease. The extent of the process may vary from a mild catarrhal cholecystitis to perforation.

The symptoms usually arise suddenly, the most prominent being pain in the region of the gall-bladder. There may be a chill, high temperature, rapid pulse, vomiting, tenderness and rigidity of abdominal wall; the latter symptoms indicating a localized peritonitis, which may occur even without perforation. In cases of perforation, the symptoms are quite similar to those of intestinal perforation.

The treatment in a mild case should consist in local measures for relief of pain, while in case of perforation immediate operation gives the patient the only chance of recovery.

In the intermediate group of cases, each must be treated on its own merits. Opium should be avoided if at all possible, and tapping the gall-bladder should never be attempted. Local measures



should be tried, but if symptoms are acute and progressive, operation is advisable.

In one case which is reported in this series, the patient was convalescing after a severe attack of typhoid. Her temperature had been normal for seven days, when it suddenly rose to  $102\frac{1}{2}$ , and severe pain in the region of the gall-bladder was complained of. The temperature remained elevated four days, during which time the gall-bladder was easily palpated. On the fourth day the temperature dropped to normal just as suddenly as it had risen, the enlargement of gall-bladder disappeared, and the patient had an uninterrupted convalescence. About two years later, I understand, she underwent an operation for removal of gall stones.

A second case occurred more recently. Patient was admitted to hospital on August 26th, 1907, and ran a typical typhoid course, followed by a mild relapse. On September 26th, during the course of relapse, severe pain was complained of in upper part of abdomen, and on September 27th a severe chill, lasting about six minutes, caused the temperature to rise to  $105\frac{1}{2}$ . It remained elevated between 103 and 105 for four days, then gradually dropped to normal. During this time there was considerable pain in the region of the gall-bladder and bile was present in the urine. Temperature now remained normal for two weeks, when patient was awakened out of her sleep with severe pain over gall-bladder, and temperature rose to  $101\frac{3}{5}$ . Pain was relieved by hot fomentations and restricted diet, and the temperature dropped to normal the following morning. Eighteen days after, a similar attack occurred, and again in 16 days. During both of the attacks patient vomited considerable greenish fluid and passed considerable mucus by the bowel. No further attack occurring during the following fortnight the patient was discharged, having been in the hospital one hundred days. Since her discharge she has had several attacks, but they are becoming less severe and farther apart.

An interesting, though somewhat rare complication, of typhoid is that known as Typhoid Spine, no better name having been suggested to date, owing to the, as yet, obscure nature of the pathological changes.

No case is reported in the series of cases treated in the Winnipeg General Hospital, so it may justly be called a rare complication.

Dr Halpenny of this city has made a careful search of the literature on this subject, and finds seventy-two cases reported, and I wish to briefly record a few of his findings from the analyses of the reports of these cases.

The symptoms, as a rule, arise during convalescence, although they may set in during the attack, or even months after. By far

the most prominent symptom is pain, which is usually extremely severe. The seat of the pain is, in the majority of cases, in the lumbar region of the spine, but no portion of the spine is exempt. The preference for the lumbar region may be explained by the fact that the bacillus of typhoid may be cultivated from the marrow of any of the vertebrae, but in greater numbers in the lumbar region than elsewhere. The pain may be accompanied by a high temperature, but this is just as frequently absent.

In twenty-two cases tenderness was present. In twelve no swelling, tenderness or other local symptom was present other than the pain on movement. In a few cases there were hypersensitive areas on either side of the spinal lesion. In twenty-three cases spinal deformity, varying from a slight prominence to marked kyphosis and scoliosis was present. In only three cases is any deformity stated to have remained. Out of eleven cases in which radiographs are reported, distinct changes in the bone or intervertebral disks were recognized in nine. The conclusion drawn from the analyses was that the condition is not neurosis, but is characterized by more or less definite local pathological lesions, which are sufficient to account for the symptoms. The prognosis is favorable, although the course is slow, usually extending over from three to five months. The most essential point is an early diagnosis, and consequently early treatment which consists in opiates for the relief of pain, rest either in bed or by means of mechanical supports, tonics, and some would recommend the cautery.

Perhaps the most common surgical complication of typhoid is abscess formation. This may be multiple or single, and hardly any portion of the body is exempt. Numerous cases are recorded where it affected the axilla, ischio-rectal fossa, neck and buttocks. Bacteriological examinations in these cases usually reveal a mixed infection, although the bacillus typhosus occasionally is the only organism found.

In spite of the fact that this condition is so common, cerebral abscess is extremely rare, Keen in his monograph recording only four cases. I refer to this condition particularly because a case occurred in the hospital within the past year. The patient, a Polander, 30 years of age, was admitted to the hospital on the 4th of February of this year, stating that he had just recently recovered from an attack of typhoid fever. He complained of a painful swelling of quite recent development over the left parietal bone. There were no constitutional symptoms other than a slow pulse. Examination of eyes showed normal fundi. On shaving his head a scar was found over the tumor, and patient gave a history of having been hurt when two years old. The day following

his admission to the hospital he had a slight spasm, somewhat resembling an epileptic seizure, and lasting about two minutes. On the morning of the fifth day he became deeply comatose and died within a few hours. At autopsy a cerebral abscess was found extending from the vertex to the mid-parietal region and communicating through a small opening in the dura and skull with a sub-perieranian abscess. Pure cultures of the typhoid bacillus were obtained from pus in abscess in brain and from pus in abscess external to the skull.

Laryngeal complications of typhoid fever, although extremely grave, are fortunately so rare that many authors do not even mention them. Keen has, however, collected two hundred and twenty-one cases, with a mortality of sixty-seven per cent., and probably speaks more authoritatively on the subject than any other writer. In the series of cases which I am considering, only one case of this nature is recorded, and in this the clinical picture very closely resembles that described by Keen. The patient was convalescing from a severe attack of typhoid, and had been able to be out of bed for a fortnight, with no untoward symptoms other than a discharging ear, when, without any apparent warning, extreme dyspnoea, cyanosis and other symptoms of laryngeal stenosis set in.

The condition was alarming in the extreme, and a fatal termination was averted only by immediate tracheotomy. Following this the patient made a rapid recovery, although still compelled, after a lapse of nineteen months, to use the tracheotomy tube. One month after the development of the laryngeal complication an operation for mastoid was performed, but this had apparently no connection with nor did it interfere with the progress of the recovery from the former complications.

The patient had at no time complained of a sore throat, but, as he did not speak English, he may have had trouble without its being noted. An absolutely normal temperature for two weeks being followed by a slight rise during the three days preceding the onset of the acute symptoms, may, in the light of the after developments, be interpreted to mean that some trouble was developing.

What the exact pathological change was in this case I am unable to say. Keen states that the three conditions which may be found, viz., edematous laryngitis, ulcerative laryngitis and laryngeal perichondritis are often found extremely difficult to differentiate even at post-mortem, and certainly much more so in those cases which recover.

The treatment and prognosis in all are identical, and the clinical fact should not be forgotten that from a very minor sore throat

affection, indicated perhaps only by a slight hoarseness, very grave symptoms may suddenly develop and demand immediate surgical attention.

Another very rare complication is thrombosis of cavernous sinus. Of this I wish to report two cases, the only ones occurring in this series, and, strange to say, both in the same year and only about one month apart.

The first case, a man aged 56 years, was admitted to hospital September 16th, 1904, with definite symptoms of typhoid fever, including a positive Widal reaction. On September 19th, his fourth day in hospital, he had a severe chill which recurred on the following day and again a few days later. On September 25th he had a slight hemorrhage, with a marked drop in temperature. This was repeated the two days following. On September 27th the right eye became slightly inflamed, and this was soon followed by marked chemosis and swelling of the eyelid, which very shortly afterwards completely closed the eye. The same condition developed in the other eye within two days. During this time patient's condition became rapidly worse, and death occurred on September 30th.

The second case was a woman 32 years of age, who was admitted to hospital on November 1st complaining of the usual symptoms of typhoid fever of the second week. On the fifth day in hospital she had a severe hemorrhage, which recurred after an interval of two days. At this time swelling appeared in the left eyelid and rapidly spread to contiguous structures. On the following day the right eye became involved, but the condition did not progress so rapidly nor to such an extent as in the left eye. Patient was by this time semi-comatose, and remained so until death occurred on the eleventh day of her stay in the hospital.

Unfortunately no autopsy could be obtained in either of these cases, but the edematous nature of the swelling, its sudden onset in one eye, and gradual extension in the other, and the rapidly fatal termination practically exclude any other diagnosis.



## PERNICIOUS VOMITING OF PREGNANCY.

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We are much indebted to Dr. Whitridge Williams of Baltimore and his assistants, who have demonstrated, to some extent at least, the nature of the disturbances of metabolism which cause a peculiar toxemia, and pernicious vomiting during pregnancy. Chemical examination of the urine in such cases shows a decrease in the amount of nitrogen excreted as urea, and an increase in the amount excreted as ammonia. Without referring to other changes we may accept the fact that this excess of ammonia excreted, or, as it is called, the ammonia coefficient, furnishes a fair indication of the severity of the poisoning. In normal pregnancy it is 4 or 5 per cent., and in cases of toxemia may rise to 10, 20, 40 per cent., or even higher. Dr. Williams has expressed the opinion that if this ammonia coefficient exceeds 10 per cent. the patient's life is endangered, and the pregnancy should be immediately terminated.

The following history is interesting in certain respects:

*Patient.*—Mrs. A., aged 27, secundipara, became pregnant early in August, 1908. Nausea and vomiting commenced early in September. Treatment, including the administration of cathartics, sedatives and enemas of salt solutions, failed to relieve the symptoms. She steadily grew worse until September 30, when the ammonia coefficient was 14 per cent. The most distressing symptom was almost constant nausea, which prevented her from eating, drinking or sleeping. The clinical signs, and the results of chemical examination, appeared to indicate the advisability or necessity for the induction of abortion. The maternal instincts, however, were very strong in the patient. She preferred to take great risks so far as her own life was concerned in the interests of her unborn babe.

*Treatment and Clinical Course.*—It was found that a hypodermic injection of one-quarter of a grain of morphine had no effect, and it was thought that a large dose might quiet those nerve

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\*Read before the Toronto Academy of Medicine, March 8 1910. Selected from Journal of American Medical Association, May 7, 1910.

centres, which, like so many specks of dynamite, were causing a vicious circle of explosions within the digestive tract, and especially in the stomach. Consequently one-half grain of morphine was administered hypodermically; and, shortly afterward, calomel was given, one grain every hour for four doses. This treatment produced satisfactory results. The patient had some sleep during the night, and felt fairly well the next morning—better than she had felt for a month before. The nausea returned, however, during the forenoon, and she had a very bad afternoon. It was then decided to give larger doses of morphine. Accordingly one-half grain was administered hypodermically at 9 p.m., one grain of calomel was given by mouth half an hour after, and as the morphine had not produced sleep another quarter-grain was administered between 10 and 11 p.m. The patient had a comfortable night, slept well, and felt comfortable and happy the next morning. As the nausea returned each afternoon this treatment was continued for five more nights with such excellent results that on the seventh day from the commencement of this treatment the patient had no nausea or vomiting. During this week she had five grains of morphine administered hypodermically, and eleven grains of calomel by the mouth. Although at this time (October 7) the general condition was vastly improved, the ammonia coefficient was still fairly high—8.2 per cent. After this less morphine was administered at bedtime for five days, after which it was stopped entirely. Calomel was given occasionally during the remainder of the pregnancy. After November 1 the patient enjoyed excellent health until she reached full term, May 8. In accordance with my custom, during the last five years of inducing labor at term or within two or three days after, labor was induced May 10, when a healthy child was born. At the time of writing (nearly nine months later) mother and child are both well.

The doses of morphine may seem large to some, but it was hoped that large doses would prove efficient when average doses produced no good effect. It is believed by some (perhaps many now) that half a grain often does good when one-eighth or quarter of a grain does harm. The dose of calomel may also seem large to some. Four grains for a woman with such a stomach, and with such low vitality, might seem a somewhat heroic dose; but in many forms of both toxemia and septicemia, large doses are frequently, if not generally, well borne by those having exceedingly disordered stomachs, and often if not generally do a world of good. If the patient vomits at once after taking one calomel pill another is given half an hour afterward, and such administration is repeated until eight pills are swallowed in some cases. It would appear

that this old-fashioned medicine is the best antidote to certain poisons known to-day.

It will be noticed that in this case the ammonia coefficient rose to 14 per cent. According to Dr. Williams' rule this pregnancy should have been terminated on or before September 30, *i.e.*, when pregnancy was about two months advanced. Considering that this patient is now a strong and happy mother, with a beautiful, healthy babe, such a procedure seems too awful to contemplate. We are learning much through modern physiologic chemistry about the various types of toxemia: but we should be careful to avoid reaching mathematically precise conclusions regarding exceedingly serious questions on insufficient data. We had hoped that the investigation of careful, conscientious workers outside of Baltimore had proved the incorrectness of this 10 per cent. rule. We find, however, that so high an authority as Sir John Byers, of Belfast, tells us<sup>1</sup> that he agrees with Whitridge Williams that "if this ammonia coefficient rose to 10 per cent. one might conclude the case was toxic, and one should empty the uterus as soon as possible."

It should be understood in this connection that emptying the uterus in a case of pernicious vomiting of pregnancy is one of the most dangerous operations in obstetrical surgery. There have been a number of heart-rending tragedies in Toronto from this cause during recent years. Certain healthy, happy brides, after short illnesses from pernicious vomiting of pregnancy, died so suddenly after the induction of abortion under chloroform anesthesia that the grief-stricken relatives had not time to say farewell. In connection with these serious cases two things should be kept in mind: (1) that the administration of chloroform is exceedingly dangerous; and (2) that forcible dilatation of the cervix is perhaps still more dangerous. Therefore, the modern operation of emptying the uterus "at one sitting" should not be performed. The common statements by experts that this "operation is practically free from danger provided perfect asepsis is observed" is woefully incorrect in such cases. The safest method is Dührssen's vagino-uterine tamponade or some modification of it. It is unfortunate that it happens in a certain proportion of cases that the emptying of the uterus, even if done before it is "too late," so far as our present knowledge can indicate, and in the most careful way by a skilled expert, is followed by no improvement. The patient simply continues to grow steadily worse until death ensues from exhaustion. Notwithstanding such dangers we probably all agree that in certain cases the induction of abortion is absolutely indicated. The practitioner in charge, when in doubt, should have a consultation as

soon as possible, and should act promptly if such an operation is decided on.

Dr. Williams has adopted the following classification: reflex, neurotic, and toxemic vomiting of pregnancy. As it is generally conceded now that in the nausea and vomiting there is always some disturbance of metabolism it seems rational to drop the terms "reflex" and "neurotic," and consider that in every instance toxemia is the cause of the condition produced. This would tend to prevent carelessness on the part of those practitioners who consider that in the great majority of cases the nausea and vomiting are simply "neurotic" or "sympathetic," and that treatment can accomplish no good. So far as our present knowledge goes it seems well to consider that there are various types of toxemia of pregnancy, of which the principal are: (1) acute yellow atrophy of the liver; (2) pernicious vomiting; and (3) that form of autointoxication that produces eclampsia. One of the advantages of grouping these three varieties in such a way is that it simplifies matters much for general practitioners. This is true especially from a therapeutic standpoint because the eliminative and sedative treatment is suitable for most of the symptoms that appear in all varieties. It is somewhat interesting to note that the treatment carried out in the case here reported is very much like that of British obstetricians fifty years ago.

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<sup>1</sup>Byers: *Brit. Med. Jour.*, Feb. 19, 1910.



## TUBERCULIN IN DIAGNOSIS\*.

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In almost all cases of tuberculosis presented to us for diagnosis a careful study of the history, symptoms and physical signs will give us sufficient data upon which to base a diagnosis.

When we have exhausted all our methods of physical examination and have made careful clinical laboratory examination of the secretions or discharges from the suspected organs or tissues and can find no evidence of tuberculosis we are usually safe in declaring tuberculosis absent.

But at times we find that at the end of our examination we are confronted with certain signs pointing to tuberculosis, yet these signs are not conclusive. The more methodical and painstaking our examination the less frequently will we find such cases, but occasionally they do occur, and it is important to use some other method of arriving at a diagnosis.

It is here that the use of tuberculin is of greatest assistance. To-day it is applied in several different ways.

The subcutaneous method has been before the profession for a number of years. For many years there was a general hesitancy in its acceptance, from a fear that its application was fraught with harm to the patient, as was taught by Virchow; but twenty years of careful work and clinical application in the hands of earnest men has led us to accept Osler's statement that "an important point is its harmlessness." Next to the fear of harm, another factor which has tended to lessen its use in diagnosis is the belief that its application and the proper interpretation of resulting symptoms was difficult. The technic, however, is very simple and the reaction as a rule readily recognized. There is comparatively slight difference of opinion as to the amount to be used. Koch originally advised an initial dose of 1 mgm., followed in two days by 5 mgm. if negative, this by 10, the last dose repeated if still negative. The beginning dose now advised is  $\frac{1}{2}$  to  $\frac{1}{3}$  mgm., followed by 1, 3, 5, and if necessary 8 or 10 mgm., 10 milligrams being generally recognized as the maximum dose necessary, the interval between doses being two or three days—and if there are subjective symptoms, malaise,

\*Prepared for the Academy of Medicine, Section in Medicine, Tuesday, January 11, 1910.

pain in back, aching joints following an injection, even without rise of temperature, the same dose is repeated—the larger dose is not given.

That this reaction is practically a specific one, and always denotes the presence of tuberculosis, was well shown in the proof brought forward before this Academy last year by Dr. H. M. Kinghorn, and this need not be here reviewed. Let me only add to the figures he adduced, both in man and in cattle, those of the Chief of the Bureau of Animal Industry, Washington, who reports that out of 24,784 reacting animals slaughtered, lesions of tuberculosis were found in 24,387—a percentage of 98.39. He adds to this that in one State at least the testing was known to be done in a careless and unreliable manner. Excluding this State, the proportion of cases in which the tuberculin reaction was confirmed by post mortem is raised to 98.81 per cent. The figures represent a compilation of the work of scores of individuals in all parts of the United States, working over a period of fifteen years. We require no stronger testimony of the marvellous accuracy of the tuberculin test. He reports also 126 reacting cattle from herds in the neighborhood of Washington, which were examined at autopsy by the veterinarians of the Bureau. There was only one failure to find the lesions of tuberculosis, the percentage of accuracy being over 99 per cent.

We are quite safe then in assuming that a general reaction to tuberculin denotes the presence of tuberculosis. It does not tell us what organ is affected unless there is a focal reaction, *e.g.*, in laryngeal or cutaneous tuberculosis a localized redness and swelling, with perhaps slight bleeding if surface is ulcerated; in pulmonary tuberculosis an increase in cough and sputum, harsh breath sounds and presence of rales in the suspected area.

On the other hand, will the absence of a reaction rule out the presence of tuberculosis? Generally speaking, we may say yes, with some modifications. We know that far advanced, moribund cases of tuberculosis rarely react—but this plays no part, for we are not justified in using the reaction in such cases. The diagnosis is made by other means.

Some cases of healed or encapsulated tuberculosis will not react, and, of course, the reaction will not occur in patients who have been receiving tuberculin therapeutically in doses larger than the diagnostic dose.

The one great disadvantage of this method is that it is not applicable in cases where the temperature rises above  $99^{\circ}$  or  $99\frac{1}{2}^{\circ}$ . It is of particular value in early pulmonary tuberculosis with suspicious physical signs and with no bacilli in the sputum, in joint

tuberculosis, in glandular tuberculosis and in laryngeal and cutaneous tuberculosis, for in these we may get focal reaction; though in my own experience focal reactions have been comparatively rare in pulmonary cases. The focal reaction should be of value in tuberculosis of the bladder, if no bacilli are found, for the changes may be observed by the cystoscope.

#### CONJUNCTIVAL REACTION.

This reaction, which created much interest two years ago, is not being generally used. It causes discomfort to the patient, and may cause serious consequences in diseased or injured eyes. This, however, appears to have been due to the careless use of tuberculin, as with the tuberculin when first introduced by Koch. Solutions of 1% and 2% have been used where only .35% as recommended by Baldwin, increased if necessary to .5%, should have been used, and most of the ill results in the form of severe conjunctivitis and other inflammatory reactions appear to have been due to the use of tuberculin in conditions of the eye where we know it to have been distinctly contra-indicated.

A number of observers have brought forward autopsy and other statistics showing the reliability of the conjunctival reaction. Calmette reports in addition to those clinically tuberculous, from 55 clinically non-tuberculous who reacted and who subsequently came to autopsy, of these 49 showed macroscopic evidence of tuberculosis.

Emmet Holt reported 47 reacting cases, of which 44 were proven tuberculous clinically or at autopsy, two were not definitely tuberculous, while in one no evidence of tuberculosis could be discovered at autopsy.

With no conjunctival reaction when the test is properly applied, can we rule out tuberculosis?

In Holt's series, 556 patients (children) did not react; of these 546 were non-tuberculous; ten were tuberculous.

Of these ten non-reacting cases of tuberculosis, nine were dying or were very ill.

The test then is one which is fairly reliable.

It causes some local discomfort, but this soon passes away if properly given.

It is not to be used in strength greater than .5% of old tuberculin, nor to be used if any disease or injury of the eye be present. It is well to avoid it altogether in strumous children.

It may be of service in adults with fever. The patient must remain under observation, for the reaction may be evanescent.

*The Cutaneous Test.*—Von Pirquet's method, puncturing the skin through a drop of old tuberculin:

Careful investigation has seemed to prove this to be an accurate specific test for tuberculous.

Von Pirquet reports on 200 children to whom this test was applied and who subsequently came to autopsy. Of these 68 had shown a positive reaction.

Sixty-six of these showed macroscopic tubercles;

Two were uncertain; one, however, showing pleural adhesions and hyperplasia of many lymph glands.

The second was one of mitral and aortic insufficiency following recurrent endocarditis, showing also adhesive pericarditis.

132 did not react; of these

109 were non-tuberculous;

23 were tuberculous.

These 23 tuberculous cases which did not react were made up of 13 miliary tuberculosis, 5 non-miliary, but dying in a few days of tuberculosis, 4 during measles, and one other.

He points out that many of these did not react to the first test—a second and third puncture being frequently necessary.

Emmet Holt reports on 217 young children, practically all under 3 years of age; 33 reacted, 184 were negative. The 33 reacting he classes as follows:

12 positively tuberculous (sputum, autopsy or operation).

15 probably tuberculous (evidence, other tests, history or physical signs).

6 probably *not* tuberculous.

None reacting who were positively not tuberculous. 184 non-reacting children:

10 positively tuberculous (9 dying or extremely ill and one cured child).

5 probably tuberculous.

166 probably not tuberculous.

3 positively not tuberculous (autopsy).

These published results are typical of those reported by others and allow us to conclude that the reaction in general corresponds with the pathological condition, remembering that it fails often in acute miliary tuberculosis, in rapidly failing moribund children, and during measles.

It is of value in pointing out the existence of hitherto unsuspected tuberculosis, and has led in many cases to further careful clinical study of cases to discover, if possible, other evidence of tuberculosis. Prolonged search and repeated examination frequently revealed bacilli in the sputum, while in other cases gradual



development of physical signs afforded evidence as to the accuracy of the test.

The results of the application of Moro's 50% ointment of old tuberculin in lanolin, and the stich reaction of Epstein and Schick injecting 1-100 mgm. O.T. under the epidermis seem to correspond to those of the Von Pirquet method.

The average amount of Moro ointment used is far too much. One manufacturing firm sends out packages directing us to apply vigorously  $\frac{1}{2}$  gm. of the ointment, *i.e.*, 250 milligrams of O.T., when we know 1-10 to 1 mgm. hypodermically will produce a reaction in susceptible persons.

I have seen marked general reaction produced through the use of Moro according to directions, and also through the application of O.T. to a scarified skin as for vaccination—a method which is *not* Von Pirquet's.

Von Pirquet's method is a single puncture through a drop of O.T. placed on the skin.

The cutaneous test, like the subcutaneous, is a very delicate test, and will not tell us whether we have to deal with a pronounced active tuberculosis or with a latent infection producing no symptoms. Hence, when used upon a patient, we may generally feel that the result is conclusive, especially when test has been repeated if at first negative, but we have still to decide whether the symptoms present are due to a tubercular process or to some other form of disease. A mistake such as the following is sure to occur unless the test is used only in conjunction with a thorough physical examination and a careful consideration of the history, symptoms and physical findings. A patient came into our wards complaining of weakness and cough; she was pale, thin and gave history of tuberculosis in her family. The student assigned to the case took the history, carefully examined the chest, and found physical signs suggestive of slight tuberculous invasion of one apex. The Moro reaction was positive. Temperature for several days was normal in morning, reaching 100° or over in evening, and he made a diagnosis of pulmonary tuberculosis. He had overlooked a slight enlargement of the spleen, and prostration more rapid than was compatible with ten days' illness with early tuberculosis, and it did not occur to him to make a Widal test, but this had shown marked clumping.

I feel that a routine use of these tests in general practice is to be avoided unless one thoroughly understands their significance, there is such danger of using them to the exclusion of other and better methods of diagnosis.

Occasionally failures and unexplained reactions occur, yet the

occurrence of a reaction creates a very strong probability, amounting practically to a certainty, that tuberculosis is present. We must depend upon physical examination to tell us which organ is affected. For example:

We apply the test in one of its forms to a child or adult under our care for some acute respiratory trouble. A positive reaction only tells us there is a focus latent or active in the body. It does not tell us that the present symptoms are caused by a tuberculous involvement. This we must bear in mind if we are to interpret the reaction properly.

The conjunctival and skin tests have been too recently introduced to lay down absolute rules as to the class of cases in which they are to be employed.

For the present the skin reaction seems to be the best to use in children, and its greatest value seems to be in children. In adults there is such a large percentage of latent tuberculosis that its real value is not yet understood. It may be that the skin reaction is positive in more latent adult cases than is the conjunctival, as stated by Calmette.

Personally I prefer the subcutaneous test in adults, but frequently use the skin reaction as easier of application, and allowing the patient more freedom and less discomfort.

It is comparatively seldom, however, that the tuberculin test is required in adults.

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## Surgery

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### **Protective Appendicitis.** ROBERT T. MORRIS, *Medical Record*.

Morris classifies appendicitis into: (a) Protective appendicitis, (b) appendicitis with intrinsic infection, (c) syncongestive appendicitis and (d) appendicitis with extrinsic infection.

“Protective appendicitis is an irritative lesion occurring in the normal involution of the appendix, and dependent on irritation of nerve filaments which persist in the contracting hyperplastic connective tissue which has replaced other normal structures of the appendix.”

Senn first described the result of this form of appendicitis in 1894, and called it appendicitis obliterans, but did not separate it from infective lesions.

Morris first called it fibroid degeneration of the appendix, and now introduces the term “protective appendicitis” for the first time. The reason for this depends on (a) structures in the appendix which are susceptible of acute infective processes are replaced by connective tissue, and (b) the nerve filaments persist longest, and being pressed on by the contracting fibrous tissue, are irritated, and as a consequence there is a permanent local hyperleucocytosis which seems to protect the appendix from bacterial attack.

The symptoms are: (1) Local discomfort in the appendix region caused by the sensory nerves being entrapped in contracting connective tissue. This discomfort persists for years, and is not enough to send the patient to bed. It is not necessary to remove these appendices on the ground that infection may suddenly supervene. (2) Sympathetic nerves are also irritated by the contraction of the fibrous tissue, and there follows chronic derangement of the bowel function.

There are three points for diagnosis when they are seen in connection with the subjective history:

(1) Hypersensitiveness on deep pressure at the site of the right lumbar ganglia situated  $1\frac{1}{2}$  inches to the right of the navel.

(2) Distention of the caecum and ascending colon with gas. This is not always present, and is due to continued irritation of

the motor nerves of the bowel, leading ultimately to relaxation of the muscles of the bowel.

The third point is the palpation of an appendix which is harder than normal.

The treatment depends on the particular case. Many patients will obtain relief mentally on finding that they are not in danger. In others it will be advisable to remove the appendix.

W. A. S.

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**The Diagnosis and Treatment of Duodenal Ulcer.** B. G. A. MOYNIHAN. *Lancet*, Jan. 1st, 1910.

"The symptoms of duodenal ulcer are definite and not easily to be mistaken, and they appear in an order and with a precision which are indeed remarkable."

"The ulceration may begin early in life, and the symptoms may, with periods of repose, continue up to middle age or even to advanced years."

The patient is usually a male between 25 and 45 years of age, and he tells you that insidiously he began to have a sense of weight and fulness in the epigastrium after meals, and soon he noticed that it came on usually two hours or so after the meal. Many patients have the pain when they are commencing to feel hungry ("hunger pain"), and the taking of food makes this pain better. These patients carry a biscuit with them and take it at the onset of the pain. The patient not seldom tells you that the taking of food eases the pain. The pain often wakens the patient at 2 o'clock in the night. Sometimes the pain is preceded by a sense of fulness, which is relieved by the belching of wind.

Vomiting is very infrequent, and the patient has a good appetite. Perhaps the most characteristic feature of duodenal ulcer is the periodicity of the symptoms and their occurrence from time to time in attacks and complete abeyance in the intervals. The attacks come on as a result of exposure to cold. These last from two or three weeks to several months, and may frequently be cut short by a few days' rest in the country.

These symptoms may be present for years without producing any physical signs.

Hemorrhage is sometimes an early, but is more often a late symptom. The occurrence of hemorrhage is of far more serious import than that from a gastric ulcer.

The hemorrhage may be copious, or it may occur insidiously, and may then cause continued weakness and anemia.



When the attacks recur, a diagnosis of chronic duodenal ulcer can be made, and the treatment is surgical.

The surgical treatment may consist in (1) excision of the ulcer and restoration of the duodenal canal; (2) excision of a cylinder of the duodenum by closure of the distal end and union of the pyloric cut end with the side of the second portion of the duodenum; (3) partial resection of the duodenum, followed by closure of both ends, and a gastro-enterostomy; and (4) gastro-enterostomy.

W. A. S.

## Ophthalmology

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D. N. MACLENNAN, W. H. LOWRY.

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**Myopia.** HENRY EALES. *Birmingham Medical Review*, April, 1910.

This paper, given by Mr. Eales on the occasion of the Middlemore lecture, is too long to readily lend itself to review, but a summary of Mr. Eales' principles of prevention or prevention of too great a development of the degree of myopia in the young, will be of interest to the general practitioner. Briefly these are as follows:

1. Education and the use of the eyes for near work should not be begun too early: at six or seven years of age is quite soon enough.
2. The light should be good, and daylight only, for the young.
3. Continuous studies should not be too long.
4. Bad positions in reading and writing should be avoided.
5. Glasses should be worn by all astigmatic children, by all myopic ones and by hypermetropes who have difficulty.
6. Slates and pencils, which make the written characters less decipherable, should be avoided, and should be replaced by paper, pen and ink. As far as possible teaching should be oral, and blackboards, maps, diagrams and other methods employed in which the eye is used for distant vision, rather than near vision employed, especially for the young.
7. Homework not done under proper conditions or supervision should, as far as possible, be discarded.
8. School books should be printed in large, clear print.
9. Proper desks and seats adapted to the height of the scholars should be used.

W. H. L.

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**Ocular Palsies in Tabes.** WILLIAM CAMPBELL POSEY, of PHILADELPHIA. *Journal of American Medical Association*, April 16, 1910.

In an interesting paper on this subject, read at Buffalo, the author impresses upon us the importance of examining the eyes of tabetics. Indeed, he says, the pupillary, muscular and optic nerve changes are so constant and so characteristic that, given in addition

to even one of these, the history of previous infection by syphilis and another characteristic of tabes, such as loss of knee-jerk diminution in muscular tonus of the legs, or marked disturbance of the bladder or sexual functions, the diagnosis of tabes becomes possible. The first ocular palsy mentioned is transient loss of power of some one of the ocular muscles, appearing early in the disease, lasting for sometimes only a few hours, though sometimes as long as a few weeks. The patient complains of double vision, and it is often a symptom he remembers distinctly as having happened before others presented. Next, the ocular palsies which occur later on in the disease are more apt to be permanent. In studying the relative frequency of the different nerves involved, Uhthoff, after having examined a very large number of cases, found the third nerve involved in 54 per cent., the sixth nerve in 33 per cent. and the fourth nerve in 8 per cent. of his cases. There was paralysis of accommodation alone in 5 per cent. of the cases. Everyone is familiar with the frequency of occurrence of the Argyle-Robertson pupil. Uhthoff found it present in 65 per cent. of his cases. Another observer has tabulated the numerous well-known symptoms of tabes, and it is seen that those relating to the eye, as seen below, are prominent in the percentage column:

Argyle-Robertson pupil .....	79%
Irregularity of pupils .....	41.5%
Palsy of ocular muscles .....	30%
Optic atrophy .....	21.5%
Diplopia .....	19%

W. H. L.

## Reviews

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*Modern Surgery: General and Operative.* By J. CHALMERS DAcOSTA, M.D., Professor of Clinical Surgery in the Jefferson Medical College, Philadelphia. Sixth Edition; greatly enlarged. Octavo of 1,502 pages, with 966 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company. 1910. Cloth, \$5.50 net; half-morocco, \$7 net. The J. F. Hartz Co., Limited, Canadian Agents.

In the preface of the first edition of the volume it is stated that the object of the book is to fill the place between "the complete but cumbersome text-book and the incomplete but concentrated compend."

It deals with general surgery, and there is no place for the consideration of eye, ear, nose and throat, and women's diseases.

The present edition is for the same object, and is a splendid work. It is thoroughly revised, and is up-to-date in all respects. There are many illustrations, and all of them are selected with great attention to clearness and detail. Many operations are described minutely, and throughout the treatment is given at some length. It is a book which can be unhesitatingly recommended, especially to medical students.

W. A. S.

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*Congenital Dislocation of the Hip.* By J. JACKSON CLARKE, M.B., Lond., F.R.C.S.: Senior Surgeon to the Hampstead and North-west London Hospital; Surgeon to the Royal National Orthopedic Hospital. Publishers: Baillière, Tindall & Cox, 8 Henrietta Street, Covent Garden, London.

A splendid monograph on a most important subject. In the preface the author states: "It is now fully established that the manipulative method of treatment of congenital dislocation of the hip-joint, when skilfully carried out at a suitable age, results in the cure of nearly 75 per cent. of these previously incurable and usually distressing cases,"—surely a sufficient justification for this method of treatment, and for the publication of this monograph. While the work is perhaps of more particular interest to the surgeon—and especially the orthopedic surgeon—it cannot fail to engage the serious attention of the general practitioner. The work deals with the subject under the following heads: Pathological anatomy, clinical examination and radiographic study, the manipu-



lative operation, post-operative treatment, ultimate results, author's open operation, and concludes with a series of forty consecutive cases.

T. B. R.

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*"Spondylotherapy."* Spinal concussion and the application of other methods to the spine in the treatment of disease. By ALBERT ABRAMS, A.M., M.D. (University of Heidelberg), F.R. M.S.; Consulting Physician to the Mount Zion and French Hospitals, San Francisco, etc., etc. Published by The Philopolis Press, Suite 406, Lincoln Building, San Francisco, California.

To glance down the list of twelve or more works by this author (duly set forth on the opposite page from the title page of the above work), and to contemplate the wide range of subject matter there considered is sufficient to impress one with the idea that the writer is at least conscious of his own worth. But to *read* this work! to consider its enormous range, dealing as it does with most of the diseases, of all the various symptoms, in brief, almost anything you may wish to be enlightened about—from Backache to Blood-pressure, Syphilis to Spinal Meningitis, or Consumption to Constipation, here you have it, and the up-to-date means of cure! What a thrill of pride and satisfaction it gives one to know it is now possible to approach disease in a truly scientific manner, and bid it depart! True, the author admits that biniodide of mercury and iodide of potassium are useful in the treatment of syphilis, and this is something worth knowing, if not entirely new. Verily this is a wonderful work, and one which would require the best part of a single issue of this journal to do justice to an extended review of its marvellous merit! Still, it cannot exactly be described as exhaustive; we have not noticed any application of Spondylotherapy for the cure of Pediculosis; but that was doubtless an oversight, and may possibly be rectified in a later edition.

Taking it all in all, this work (and his other numerous books) should serve to advertise the author well, more especially with that large and influential body known as the "general public," who cannot fail to be impressed by its profound erudition.

T. B. R.

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*International Clinics.* A quarterly of illustrated, clinical lectures and especially prepared original articles. By leading members of the medical profession throughout the world. Vol. I., Twentieth Series, 1910. Philadelphia and London: J. B. Lippincott Company.

This, the first volume of the series for 1910, is of the standard of previous productions. The special articles are on serum diagnosis of syphilis, by Homer F. Swift, Hidego Noguchi, and B. Sachs. These are especially good and worth careful study. The greater part of the work is devoted to treatment, medicine, surgery, gynecology, pediatrics, neurology. Considerable space is also given to progress of treatment, medicine and surgery during 1909.

G. C.

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*Diseases of the Stomach and Intestines.* By ROBERT COLEMAN KEMP, M.D., Professor of Gastro-Intestinal Diseases, New York School of Clinical Medicine. Octavo of 766 pages, with 279 illustrations. Cloth, \$6.00 net; half morocco, \$7.50 net. W. B. Saunders Company: Philadelphia and London. Canadian Agents: The J. F. Hartz Co., Ltd., Toronto. 1910.

During the last few years a considerable number of works on diseases of the stomach and intestines have appeared, and this volume is the last of these publications. The author's intention is to produce a book, giving simple and practical methods in the study of diseases under consideration. With this object in view he has given special attention to illustrations by photographs and sketches of methods of diagnosis and treatment. This is a commendable feature of the work.

With regard to the manner in which the subject matter is treated, we are not impressed very favorably. The book contains a great number of statements which would stand a good deal of sifting and "boiling down." We feel that the work is too large for the manner in which it is written, no attempt being made to treat the subject in a philosophical manner.

G. C.

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*American Practice of Surgery.* Volume V. New York: Wm. Wood & Co.

Volume V. of this system comprises a lengthy treatise upon the surgery of the head, sections dealing with the face and cranial nerves follow, the remainder of the volume being occupied with the surgical affections of the eye, ear, pharynx and larynx. In general the standard set by previous volumes has been maintained, but in one respect we are of the opinion that a marked advance has been made. We refer to the article on Brain by Archibald, of Montreal. The subject, a difficult one at any time, has been handled in a masterly manner, both from the scientific and practical stand points, and is in every way a most creditable piece of work.

G. E. W.

# Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

**Medicine:** Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross, Wm. D. Young.

**Surgery:** Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

**Obstetrics:** Chas. J. C. O. Hastings, Arthur C. Hendrick.

**Pathology and Public Health:** John A. Amyot, O. R. Mabee, Geo. Nasmith.

**Psychiatry:** Ernest Jones, W. C. Herri-man.

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**Rhinology, Laryngology and Otol-ogy:** Geoffrey Boyd, Gilbert Royce.

**Gynecology:** F. W. Marlow, W. B. Hendry.

**Genito Urinary Surgery:** T. B. Richardson, W. Warner Jones.

**Anesthetics:** Samuel Johnston.

GEORGE ELLIOTT, MANAGING EDITOR

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No. 6.

## COMMENT FROM MONTH TO MONTH.

**On the Report of the Committee of the American Gynecological Society on the Present Status of Obstetrical Education in Europe and America, and on Recommendations for the Improvement of Obstetrical Teaching in America.**

From the Report one learns that in Great Britain the teaching of obstetrics is carried out chiefly by the giving of didactic lectures, thirty or forty in number, extending over the two final years usually, and, in addition, clinical instruction in the wards of the lying-in departments. Practical obstetrics is taught by the student receiving demonstrations in the museum and by attendance upon about fifty cases as spectator. Also some universities demand actual attendance upon at least twenty cases in addition to those cases just witnessed.

The usual diseases of women and minor surgical procedures are also taught by the obstetric teachers.

In Germany obstetrics seem to be combined both with gynecology and with the diseases of infants. As is to be expected, much more attention is paid there to the pathology of disease, and the students receive a very thorough course in microscopic diagnoses, and in their final year are instructed in the art of cystoscopy, and receive demonstrations weekly for nine weeks in pathological anatomy with

the epidioscope, microscope, etc. Each student in the final semester must live one month in the clinic, where he observes and *conducts* forty (40) labors and performs minor operations.

At Vienna, of the five-year course one year is occupied chiefly by obstetrics and gynecology. The lectures occupy 10 hours a week. Besides, he *witnesses* a large number of labors and performs minor operations, such as repair of perineal lacerations, episiotomy, manual extractions, etc. The manikin is much used in teaching obstetrical manipulations. Besides, there is instruction in the examination of pregnant women. This consists in examinations of parturient women also and operations upon the manikin.

At Zurich the theoretical lectures are *not* obligatory, operations are done on the manikin, and on rare occasions on the living subject under supervision.

The first examination consists in a clinical, oral and operations on the manikin.

France would seem to combine more closely diseases of women with the teaching in obstetrics. Didactic teaching is largely done away with, and much more time devoted to tutored classes, in wards and museums. The teaching extends over two terms of almost one year's duration.

Italy seems to cling to the didactic method still, and the final examination is purely theoretical, no clinical or oral examination being required.

In the United States, as one would expect, many methods of teaching are followed.

In Columbia obstetrics are studied during the second, third and fourth year, the fourth year being devoted, however, to the purely practical side of the subject, but the pathology of disease appears not to be followed so far as in the German schools. Cornell also has the three-year course. Harvard Medical School seems to have one of the best systems of instruction. During the third year the student receives 64 hours of lectures, 32 hours of recitations and 32 hours of conferences. In addition, the clinical instruction consists in two weeks day and night in hospital residence devoted to obstetrical duties. At the end of the two weeks an additional week in following his cases and writing reports on them. The fourth year is elective. Here the class works in sections of from six to ten students. For two weeks he is in hospital residence, and attends six to ten patients under the supervision of the instructor. The next two weeks he follows the patients and writes reports upon them. He receives a lecture and a visit is made to the wards every day, where ante-partum and post-partum examinations are made. The manikin and foetal cadaver are employed. Finally a thesis



is required upon some subject of choice. The graduate may attend over thirty cases personally. Gynecology is taught in both the third and the fourth year.

Johns Hopkins follows much the same methods, but also gives an optional course in obstetrics, histology and pathology.

In McGill University the teaching of obstetrics seems more after the manner of the Harvard School. Perhaps, like the University of Toronto, more attention is paid to the didactic lectures than do the American schools. Bedside instruction is followed out as much as possible, however, and the practical side is carefully kept in mind. The course is graded and lectures given separately to the third and the fourth year, and a clinical examination similar to that in medicine and surgery is an important part of the final examination.

Obstetrics is combined with diseases of infants, whilst gynecology forms a separate department in McGill, as it does in the University of Toronto.

Obstetrics in Toronto University is taught in both the third and the fourth years. In the third year physiological obstetrics are taught by means of didactic lectures and models and charts. In the final year pathological obstetrics, *i.e.*, abortions, miscarriages, puerperal infections, are gone into thoroughly. The students receive didactic lectures and also clinical instruction. The didactic lectures in the fourth year are given to classes of about twenty men, whilst clinical instruction in the management of deliveries, in ante-partum and post-partum examinations are given to smaller classes of about six to ten men. The uses of the pelvimeter, operations upon the manikin and lantern slide demonstrations are also utilized to give the students as practical a grasp of the subject as possible. Besides, an out-patient clinic in obstetrics is carried on, and the senior students are allowed to attend these patients at their homes under the supervision of the instructors.

In the University of Toronto didactic lectures still hold a place, but the tendency is to have them given to small classes and to take on more the character of a conference, such as Harvard Medical School employs. The theatre lecture is given still, especially in the junior years, where it is thought a general survey of the subject is important.

#### Recommendations:

The committee suggested that the teaching of obstetrics should occupy at least two years of the medical course, and that the number of cases personally conducted by each student should be at least six under supervision and instruction.

*Character of Instruction.*—Of the following methods, *viz.*:

1. Didactic lectures.

2. Clinical lectures.
3. Clinical conferences.
4. Ward classes and touch courses.
5. Hospital and out-patient instruction.
6. Manikin practice in operative obstetrics.
7. Recitations.

The committee strongly recommend the clinical lectures and conferences and ante-partum examinations, *i.e.*, inspection, palpation, pelvimetry, fetometry, vaginal examinations, etc., and that a two weeks' hospital residence should be required before the out-patient practice.

*Scope of Instruction.*—It is recommended that as obstetrics at present includes pregnancy and parturition, their complications and consequences, and the complete recovery of women after labor, the instruction should include the treatment of these conditions.

A. C. H.

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**The Hamilton school of anatomy** was incorporated by the Ontario Legislature at the session recently closed. The incorporators are Drs. Ingersoll Olmsted, Archibald Edward Malloch and Alexander Bryson Osborne. All are well-known practitioners of the Ambitious City, and in their petition for incorporation set forth that they desired to "establish, carry on and maintain a school in or near the said city of Hamilton for the advanced study of anatomy and surgery."

By the Act of Incorporation, the Hamilton School of Anatomy is empowered not only to carry on such school, but to have lectures delivered as the advance of surgical knowledge may demand.

The said school shall also be a recognized medical school within the meaning and purpose of the Ontario Anatomy Act, and is therefore qualified to receive dead bodies for dissection under the provisions of said Act.

The progressive spirit manifested by the promoters of the Hamilton School may be imitated by others, which might result in a serious lessening of dissecting material to the established medical teaching institutions of the Province.

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**Scientific research laboratories** such as those conducted under government auspices, the Carnegie Institute at Washington, the Henry Phipps Institute at Philadelphia, the Rockefeller Institute for Medical Research at New York, as well as the research

laboratories of large corporations and manufacturers' associations, are gradually superceding work in this direction in universities and colleges.

Freed from the cares and duties of teaching, with efficient organization, equipment and endowment either by governmental or by private munificence, these institutions are in a position to render the very best assistance to the original investigator. Working systematically along well-defined lines, and entirely free from financial and administrative concern, many men of reputation have been attracted to these institutions, and as a result the universities and colleges suffer.

Universities and colleges are all too often hampered in their work and expansion by meagre appropriations necessarily distributed over different departments. Still universities have extended. Student bodies have grown numerically larger, and consequently academic requirements have correspondingly increased. As a consequence the research scientist of the university has not the time to devote to this branch of work, when his academic duties demand an ever-increasing proportion of his time.

It would appear, then, that universities will in the future relinquish the pursuit of scientific research to the exactions of the purely educational machinery, and the work be relegated in large part, if not wholly, to those special institutions, so eminently endowed and equipped.

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**Tremendous fortunes in patent medicines** are said by an American medical journal to about be a thing of the past. The Pure Food and Drugs Acts of the United States are looking after that.

For many moons, however, many people have put their trust in patent medicines, and doubtless will continue to do so, believing that the physician is an interested party.

As one patient after another hawks around prescriptions, so patent medicine devotees are very helpful patent medicine advertisers.

The *Montreal Medical Journal* is authority for the statement that eight million dollars are spent annually in Canada for these nostrums. Divided amongst the six thousand physicians of Canada, this would mean an annual income of \$1,300. Considering that the average annual income of the medical profession has recently been put down at \$1,250, the waste on patent medicines

would very nicely tide one over the starvation period in medical practice.

There seems to be in cities an ever-increasing number of physicians who do their own prescribing; and it might be well to the financial advantage of the medical profession if, in the matter of pills and potions, coughs and colds, the people were met a little more than half-way in the matter of fees for minor ailments.

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**A secretary of public health** for the Dominion of Canada, whilst not exactly advocated in these pages before, has been in the respect of a Bureau of Public Health. The Canadian Medical Association for nine years now has pressed this matter upon the federal Prime Minister and the Honorable the Minister of Agriculture.

"The nineteenth century was the century of the United States; the twentieth century is to be the century for Canada." Why, then, not go the whole distance and at least keep pace with the United States in public health matters? Below we give in full the bill Senator Owen, of Oklahoma, has introduced into the Senate of that country to provide for a separate official department having equal rank with other departments of the Cabinet.

"*Be it enacted, etc.*, That there is hereby established a department of public health under the supervision of the Secretary of Public Health, who shall be appointed by the President a Cabinet officer, by and with the consent of the Senate, at a salary of \$12,000 per annum, with like tenure of office of other Cabinet officers.

"Sec. 2. That all departments and bureaus belonging to any department, excepting the Department of War and the Department of the Navy, affecting the medical, surgical, biological, or sanitary service, or any questions relative thereto, shall be combined in one department, to be known as the Department of Public Health, particularly including therein the Bureau of Public Health and Marine Hospital Service, the medical officers of the Revenue-Cutter Service, the medical referee, the assistant medical referee, the surgeons and examiners of the Pension Office; all physicians and medical officers in the service of the Indian Bureau or the Department of the Interior at old soldiers' homes, at the Government Hospital for the Insane, and the Freedman's Hospital and other hospitals of the United States; the Bureau of Entomology, the Bureau of Chemistry and of Animal Industry of the Department of Agriculture; the hospitals of the Immigration Bureau of the Department of Commerce and Labor; the emergency relief in the



Government Printing Office, and every other agency of the United States, for the protection of the health of the people of the United States, or of animal life, be, and are hereby transferred to the Department of Public Health, which shall hereafter exercise exclusive jurisdiction and supervision thereof.

"Sec. 3. That the official records, papers, furniture, fixtures, and all matters, all property of any kind or description pertaining to the business of any such bureau, office, department, or branch of the public service is hereby transferred to the Department of Public Health.

"Sec. 4. That the Secretary of Public Health shall have supervision over the Department of Public Health, and shall be assisted by an Assistant Secretary of Public Health, to be appointed by the President, by and with the advice and consent of the Senate, at a salary of \$6,000 a year, with such duties as shall be prescribed by the Secretary not inconsistent with law.

"Sec. 5. That the secretary of public health shall be authorized to appoint such subordinates as may be found necessary. There shall be a chief clerk appointed, at a salary not to exceed \$3,000 a year, and such other clerks as may from time to time be authorized by Congress.

"Sec. 6. That the officers and employees of the public service transferred to the Department of Public Health shall, subject to further action by Congress, receive the salaries and allowances now provided by law.

"Sec. 7. That it shall be the duty and province of such department of Public Health to supervise all matters within the control of the Federal Government relating to the public health and to diseases of animal life.

"Sec. 8. That it shall gather data concerning such matters; impose and enforce quarantine regulations; establish chemical biological, and other standards necessary to the efficient administration of said department; and give due publicity to the same.

"Sec. 9. That the Secretary of Public Health shall establish a bureau of biology, a bureau of chemistry, a bureau of veterinary service, a bureau of sanitary engineering, reporting such proposed organizations to Congress for suitable legislation relative thereto.

"Sec. 10. That all unexpended appropriations and appropriations made for the ensuing year shall be available on and after July 1, 1910, for the Department of Public Health, where such appropriations have been made to be used by any branch of the public service transferred by this act to the Department of Public Health. It shall be the duty of the Secretary of Public Health to

provide, on proper requisition, any medical, sanitary, or other service needed of his department required in another department of the Government.

"Sec. 11.—That any other department requiring medical, surgical, sanitary, or other similar service shall apply to the Secretary of Public Health therefor wherever it is practicable.

"Sec. 12. That all officers or employees of the Government transferred by this Act to the Department of Public Health will continue to discharge their present duties under the present organization until July 1, 1910, and after that time until otherwise directed by the Secretary of Public Health or under the operation of law.

"Sec. 13. That all laws or parts of laws in conflict with this Act are hereby repealed."

At present in the United States public health matters are governed from at least eight separate government bureaus; in Canada, five. That confusion often arises, that work and official business is often hampered and even nullified, there is every reason to believe. Efficiency and progress in public health affairs can only be successfully effected through the medium of a responsible department. The Canadian Medical Association should not lose sight of this very important project, and should continually bring its strength and influence to bear upon the Federal Government in the matter.

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**That city milk supplies** are being improved, and will more and more be improved is abundantly evidenced on every hand.

There is one question, however, upon which medical men should get together and agree, viz., Pasteurization.

Recently we are told that an eminent pediatricist of New York, Dr. Louis Fischer, has condemned the commercial Pasteurization of milk in scathing terms. That is all right; so does everybody. There are some people, even amongst physicians, who will not understand the difference between "sterilized" milk, "commercially Pasteurized" milk and "Pasteurized" milk.

Opponents of present-day "Pasteurized" milk (approximately 145° F. for 30 minutes and immediately cooled) are eternally ringing in "sterilized" and "commercially Pasteurized" milk, and that, too, in spite of the fact that nobody advocates those: A case of "drawing the herring, etc."

If someone would only be kind enough to put upon record specific instances of harm, such as rickets, scurvy, etc., which have

been caused by Pasteurized milk, then we would have something authoritative.

The new Health Commissioner of New York, Dr. E. J. Lederle, holds in the *Journal A. M. A.*, March 19th, 1910, that in the future the milk supplies of large cities will be under strict control, federal, state and municipal, as regards the production, transportation and distribution.

The grades of milk he holds will be as follows: *Infants' Milk*—Distributed from infants' milk depots and by dealers. Certified milk, raw. Clean milk from tested cattle, Pasteurized. Modified milk from either of the above grades. *Family Milk*—Clean, raw milk from tuberculosis-free herds. Clean Pasteurized milk from such herds. Clean skim milk, raw or unpasteurized. All cream, except that from certified or guaranteed milk, to be Pasteurized and sold according to the butter-fat it contains. Milk from untested herds will be permitted to be sold when properly Pasteurized, as well as milk from cows which have been tuberculin-tested and have reacted, but which it has not been deemed necessary to destroy.

Certified milk is said to be the ideal. Ideals are mostly visionary, but it is well to have them and ever keep them before us. The word just below ideal is standard. Pasteurized milk should be the standard to go by; and the protagonists in this great matter might well adopt as their slogan—Clean Milk Pasteurized.

## News Items

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### CANADIAN MEDICAL ASSOCIATION.

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TORONTO meeting, 1910, was considerably the largest meeting ever held—over four hundred and thirty were in attendance.

To the President-elect, Dr. Geo. E. Armstrong, Montreal, and to the new General Secretary, Dr. E. W. Archibald, Montreal, we extend our hearty congratulations, and wish them the best success for 1911.

CONGRATULATIONS are due to Dr. Adam H. Wright, the President, who was untiring in his efforts to promote a successful meeting, and who was particularly anxious that outsiders should be well looked after and made to feel at home.

DOMINION registration was again on the boards; and it is understood an amicable and satisfactory understanding has been arrived at, so that the goal is now probably nearer than ever before. Dr. T. G. Roddick has labored long and earnestly in this direction, and it is hoped his efforts will be crowned with complete success in not later than a couple of years.

MONTREAL was selected as the place of meeting in 1911. With the President-elect as Chairman of the Executive Council, Dr. James Bell, Chairman of the Finance Committee, the new General Secretary located there, and the *Montreal Medical Journal* to become The Journal of the Canadian Medical Association, as soon as matters of transfer can be satisfactorily arranged by the Finance Committee, and Dr. Andrew Macphail, the clever, versatile *littérateur*, editor of the official journal, great things may be expected for the future of the Association.

THE Committee on Necrology was placed with Dr. J. H. Elliott, Toronto, as Chairman.

THE Committee on Reports of Officers was placed in charge of Dr. Ingersoll Olmsted, Hamilton.



THE Committee on Medical Education will consist of R. A. Reeve, Chairman, James Bell, Alexander McPhedran, F. N. G. Starr, F. G. Finley, Murray MacLaren, C. J. Fagan and George E. Armstrong.

THE Committee on Amendments to the Constitution and By-Laws will be in charge of Dr. H. B. Small, Ottawa, who was also re-elected Treasurer.

THE Committees on Medical Legislation and Public Health and Hygiene were placed in charge of Dr. A. T. Shillington, Ottawa, with power to add to his number.

THE Committee on Medical Inspection of Schools will be John Stewart, Chairman, Helen MacMurphy, Secretary, C. J. Fagan, Jaspar Halpenny, A. McPhedran and J. D. Lafferty.

THE Vice-President for the Province of Quebec will be Dr. A. Simard, Quebec, and the local Secretary, Dr. Campbell Howard, Montreal.

FINANCE COMMITTEE.—Notice of motion having been given last year at Winnipeg by Dr. S. J. Tunstall, Vancouver, to increase the Finance Committee from five to seven, the Executive adopted this amendment and elected the following Finance Committee: James Bell, Montreal, Chairman; J. T. Fotheringham, Toronto; Murray MacLaren, St. John; F. G. Finley, Montreal; F. N. G. Starr, Toronto; R. J. Blanchard, Winnipeg, and S. J. Tunstall, Vancouver, with President Adam H. Wright, Toronto, and General Secretary, Dr. E. W. Archibald, Montreal, ex-officio.

THE Executive Council elected at the first general session were: C. J. Fagan, Victoria; Ingersoll Olmsted, Hamilton; George E. Armstrong, Montreal; A. T. Shillington, Ottawa; James Bell, Montreal; F. N. G. Starr, Toronto; J. T. Fotheringham, Toronto; J. H. Elliott, Toronto; John Stewart, Halifax; A. McPhedran, Toronto; R. A. Reeve, Toronto; Murray MacLaren, St. John; Alex. McNeill, Summerside, P. E. I.; J. D. Lafferty, Calgary; F. G. Finley, Montreal. These with the representatives from the affiliated provincial societies will constitute the Executive Council for the ensuing year. Dr. Geo. E. Armstrong, Montreal, was elected Chairman.

THE exhibition of pharmaceutical products was a very fine one and most satisfactory arrangements were made to display the

different exhibits. This was in charge of a Committee with Dr. Samuel Johnston, Chairman, and Dr. W. B. Hendry as Secretary. Amongst those who exhibited we noticed the names of H. K. Wampole & Co., Perth, Ont.; The Wingate Chemical Co., Montreal; Burroughes, Wellcome & Co., London and Montreal; The Chas. H. Phillips Company, New York; Fairchilds Brother and Foster, New York; Brand & Co., London and Montreal; The Denver Chemical Co., New York; Lloyd Wood, Toronto; Waterbury Chemical Company, Toronto; J. B. Lippincott Co., Philadelphia and Montreal; The J. F. Hartz Co., Toronto; Dr. Kathern Storm, Supporters; and Nauheim Salts.

REPORT of General Secretary.—At the Annual Meeting in Winnipeg last year there were 342 in attendance, the largest meeting in the history of the Association, the only one which nearly approached it in point of numbers being the Montreal meeting of 1902, where there were present 329. Of the 342 in attendance, 8 registered from British Columbia, 16 from Alberta, 21 from Saskatchewan, 187 from Manitoba, 136 being from Winnipeg, 72 from Ontario, 11 from Quebec, 8 from the Maritime Provinces and 19 guests. The meeting was an exceedingly well-organized one and the visiting delegates were most enjoyably entertained by the profession of Winnipeg.

RESOLUTION re antitoxins and other sera:

*Whereas*, The health of the people of Canada is of national importance;

*Whereas*, The use of antitoxin has reduced the death rate of diphtheria from 35 per cent. to 10 per cent.; and

*Whereas*, A further substantial reduction may be effected by the use of larger doses; and

*Whereas*, The cost of large doses of antitoxin is almost prohibitive to the poorer people; and

*Whereas*, The antitoxin used in Canada comes largely from foreign countries, and is frequently shipped long distances under unknown conditions; and

*Whereas*, Antitoxin is a substance, the stability of which is easily interfered with; and

*Whereas*, There is at present no Canadian supervision or examination as to purity or potency of sera sold or used in Canada; be it therefore

*Resolved*, That we, the members of the Canadian Medical Association, respectfully petition the Government of the Dominion of Canada to establish a Laboratory with all necessary accompaniments for the production of antitoxin and other sera and to distribute them throughout Canada at the cost of production. This was adopted by the Executive Council on motion of C. J. Fagan, Victoria, and A. McPhedran, Toronto, and ordered incorporated in the report of the Executive to the Association, which was subsequently received and adopted by the general body. The matter was then referred to the Committee on Medical Legislation for action, whose Chairman is Dr. A. T. Shillington, Ottawa.

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DR. FRANCIS LEE, of Grand Rapids, Mich., and Dr. Myer, of Cobden, Ont., are in Montreal taking a private course in gynecology with Dr. Laphorn Smith.

At a meeting held at Washington, May 2, it was decided to form an American Psychopathological Association. The following officers were elected: President, Dr. Morton Prince (Boston); Secretary, Dr. G. A. Waterman (Boston); Committee, Drs. A. R. Allen (Philadelphia), August Hoch (New York), Ernest Jones (Toronto), Adolf Meyer (Baltimore), and J. J. Putnam (Boston). The *Journal of Abnormal Psychology*, edited by Drs. Donley, Jones and Prince, is to be the official organ of the Association. Papers were read at the meeting by Drs. Brill, Jones, Prince, Putnam and Waterman.

## Publishers' Department

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A NEW PATHOGNOMIC DIAGNOSTIC SIGN IN NEOPLASTIC STENOSIS OF THE COLON.—C. Minerbe and D. De Giacomi, in a case of lymphosarcoma of the colon and retroperitoneal glands, demonstrated that the colon was obstructed by inflating the intestine with a bicycle pump attached to an intestinal tube. The strong impulse which was imparted to the air in the colon by the stroke of the piston caused expansive pulsation in the tumor, which could be felt by the hand placed on the abdomen. He considers this a pathognomic sign of obstruction of the descending colon. After a series of experiments on the cadaver and the living body, he states that the following conditions must be present to give a successful test by this method: they are an intact sphincter ani, and the presence of stenosis of a certain degree due to degeneration of the intestine. The walls of the colon must be indurated by infiltration, and not the entire circumference of the intestine have been invaded, so as to render it inextensible. Unfavorable conditions occur with thick abdominal walls, deep situation of the colon, fullness with feces, and contraction of the abdominal walls. The same method applied to the stomach with an esophageal tube causes the stomach to stand out, so that its boundaries may be seen through the abdominal walls.—*La Riforma Medica*.

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POSTURE IN THE RECOGNITION OF TRICUSPID DISEASE.—The diagnosis of involvement of the tricuspid valve is often far from simple, especially in cases of mild disease or relative incompetency, in which the murmur appears only under certain stress. In such cases change of posture or exercise may bring out a murmur previously unheard, and such procedures are carried out by every careful diagnostician who suspects a lesion of this valve. In the *Archives of Diagnosis* for January, 1910, Heinrich Stern describes a posture which he says has not previously been described, and of great aid in diagnosing the condition. To quote Stern's own words, he has "found that it is often possible to induce the murmurs which are characteristic of tricuspid disease when they have been absent, and to accentuate them so that they are better audible and distinguishable in case they be present, but are vague and indis-



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No. 51 Blaud.....	= 10 grs.
No. 52 Blaud.....	= 15 grs.

## Blaud and Arsenic

No. 53 {	Blaud.....	= 5 grs.
	Arsenical solution.....	= 2 mins.
No. 54 {	Blaud.....	= 10 grs.
	Arsenical solution.....	= 2 mins.
No. 55 {	Blaud.....	= 15 grs.
	Arsenical solution.....	= 2 mins.

## Blaud Aloes and Nux Vomica

No. 56 {	Blaud.....	= 5 grs.
	Ext. Aloes.....	1 gr.
	Ext. Nux Vomica.....	$\frac{1}{4}$ gr.
No. 57 {	Blaud.....	= 10 grs.
	Ext. Aloes.....	1 gr.
	Ext. Nux Vomica.....	$\frac{1}{4}$ gr.
No. 58 {	Blaud.....	= 15 grs.
	Ext. Aloes.....	1 gr.
	Ext. Nux Vomica.....	$\frac{1}{4}$ gr.

## Blaud Arsenic and Nux Vomica

No. 59 {	Blaud.....	= 5 grs.
	Arsenical solution.....	= 1 min.
	Ext. Nux Vomica.....	$\frac{1}{4}$ gr.
No. 60 {	Blaud.....	= 10 grs.
	Arsenical solution.....	= 2 mins.
	Ext. Nux Vomica.....	$\frac{1}{4}$ gr.

## Blaud Arsenic and Strychnine

No. 61 {	Blaud.....	= 5 grs.
	Arsenical solution.....	= 2 mins.
	Strychnine.....	1-50 gr.
No. 62 {	Blaud.....	= 10 grs.
	Arsenical solution.....	= 2 mins.
	Strychnine.....	1-50 gr.

## Blaud Tonic Laxative

No. 65 {	Blaud.....	= 10 grs.
	Arsenical solution.....	= 2 mins.
	Ext. Nux Vomica.....	$\frac{1}{4}$ gr.
	Phenolphthalein.....	$\frac{1}{2}$ gr.

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tinct. We generally examine the heart while the individual is in the erect or recumbent position, and the more painstaking of us examine our patients by utilizing both postures. When a patient is on his back and there is any tendency to distension of the jugular veins, it will be evinced there and then. By lowering the head of the patient, while he is still on his back, the jugular veins become more distended, as a rule, and may begin to pulsate. Distension of the vein, or its pulsation, will increase in direct ratio to the lowering of the head, but when a certain point is reached, which is dependent upon individual factors, the pulsation diminishes more or less and the engorgement may also recede. This lowering of the head, which in reality is but an extension, a stretching of the muscles of the neck, the veins, etc., is reflected in the tricuspid area, where now murmurs are noticed that were not perceptible before, or which had been quite indistinct." As the posture produces an increase of the tricuspid incompetency, and may induce dyspnea, cyanosis, and pulsation of the liver, it is important that it be maintained only so long as it is absolutely necessary. For this reason the examiner "must be ready to proceed with the examination, stethoscope attached to the ears, and at the very moment the patient has assumed the posture. He should stand behind the patient, somewhat to the right of the head of the latter when an examining table is utilized. In case the examination is made in bed, the physician should be sitting at the right side of the head of the patient, who has been placed across the bed. In both cases the head of the patient should be supported by either the left hand of the examiner, or, in advanced cases, by both hands of an attendant. It should not be dropped at once over the edge of the examining table, or bed, but should be brought down very gradually and be immediately elevated as soon as the dyspnea and the venous engorgement become excessive."—*Medical Record*.

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CHINESE MEDICINE.—A correspondent has forwarded us the following description of Chinese medical treatment which was given originally by a Roman Catholic priest, Père Ripa, of what he underwent to prevent the ill-effects of a fall. Having been thrown from his horse and left fainting in the street, he was carried into a house where a doctor soon visited him. "He made me sit up in bed, placing near me a large basin filled with water, in which he put a thick piece of ice to reduce it to the freezing-point. Then stripping me to the waist, he made me stretch my neck over the basin, while he continued to pour the water on my



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neck with a cup. The pain caused 'by those nerves which take their rise from the pia mater' was so great and so insufferable that it seemed to me unequalled, but he said it would staunch the blood and restore me to my senses, which was actually the case, for in a short time my sight became clear and my mind resumed its powers. He next bound my head with a band drawn tight by two men, who held the ends, while he struck the intermediate parts vigorously with a piece of wood, which shook my head violently, and gave me dreadful pain. This, he said, was to set the brain, which he supposed had been displaced, and it is true that after the second operation my head felt more free. A third operation was now performed, during which he made, me, still stripped to the waist, walk in the open air supported by two persons, and while thus walking he unexpectedly threw a basin of freezing cold water over my breast. As this caused me to draw my breath with great vehemence, and as my chest had been injured by the fall, it may easily be imagined what were my sufferings under this affliction; but I was consoled by the information that if any rib had been dislocated this sudden and hard breathing would restore it to its natural position. The next proceeding was not less painful and extravagant. The operator made me sit on the ground, and, assisted by two men, held a cloth upon my mouth and nose till I was almost suffocated. 'This,' said the Chinese Esculapius, 'by causing a violent heaving of the chest, will force back any rib that may have been dislocated.' The wound in my head, not being deep, he healed it by stuffing with burnt cotton. He then ordered that I should continue to walk much, supported by two persons; that I should not sit long, nor be allowed to sleep till 10 o'clock at night, at which time I should eat a little thin rice soup. He assured me that these walks in the open air while fasting would prevent the blood from settling upon the chest where it might corrupt. These remedies, though barbarous and excruciating, cured me so completely that in seven days I was able to resume my journey."—*The Lancet*.

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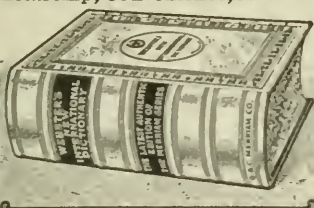
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Experience goes to prove that two antikamnia tablets in an ounce of sherry wine, taken every two to four hours, will carry the patient through these painful periods with great satisfaction.—*Medical Reprints*, London, Eng.

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DIATHETIC ANEMIA.—Although it is considered an axiomatic principle that successful therapy depends upon the abolition or removal of the causative factor of any diseased condition, it is often the part of clinical wisdom to adopt direct restorative and hematinic treatment while the underlying operative cause is being sought for and remedied. It is of course well understood that the general anemia and devitalization dependent upon and caused by any of the constitutional diatheses or dyscrasia cannot be successfully combated by hematics and tonics alone. In Specific, Rheumatic, Tuberculous, Malignant or Paludal infections, the primal cause must be attacked with all the weapons of modern medical warfare that are likely to be of service, either antidotal or nutritional. At the same time it is quite certain that a perfectly bland, non-irritant and readily tolerable hemic restorative, such as Pepto-Mangan (Gude), is needed. This palatable preparation of iron and manganese, in the form of organic peptonates, can almost always be given with distinct advantage to appetite, digestion, nutrition and general "well-being," while causative therapy is under way.

# Dominion Medical Monthly

And Ontario Medical Journal

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## Original Articles

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### THE PRESIDENT'S ADDRESS.\*

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BY ADAM H. WRIGHT, B.A., M.D., M.R.C.S. ENG.,  
Professor of Obstetrics, University of Toronto.

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#### THE GENERAL PRACTITIONER.

It is supposed by some that the general practitioner will soon become extinct. Although that seemed possible or probable a few years ago in some cities, such as New York, Chicago, etc., it appears that the pendulum is swinging the other way, and the family physician is now considered a necessity in most homes. There is perhaps no member of an ordinary community who comes more prominently into view than the doctor. He must run the gauntlet of criticisms very varied in character. Sometimes these criticisms are harsh and unjust, but on the whole we have no cause to complain. One of the finest characters ever described was Dr. McClure. How many such there are we know not: but there are a few—perhaps many. We might name one—Gawn Shaw Cleland of Toronto, who “crossed the bar” last January. The *Toronto Globe*, in an obituary article, said respecting Cleland: “He was loved and respected by his patients and was looked upon throughout the community as another Dr. McClure.”

He it was or such as he that Sir Luke Fildes had in view when he painted that great picture, “The Doctor,” nineteen years ago. Mitchell Banks, of Liverpool, England, made the following reference to it in 1892: “Of the hundreds of medical men who have

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\*Delivered before the Canadian Medical Association, Toronto, June 1st, 1910.

stood before that picture I am sure there was not one whose pulses it did not quicken with pleasurable pride, or who left it without thinking that it already had been, and again would be his privilege to fight against pain and suffering and death like his colleague on the canvas. Note where the scene of the picture is laid: not in some rich man's mansion, but in a workingman's cottage. With admirable skill the painter has pitched on the early hour of the morning for the time. . . . The sick child, worn with the raging fever, lies spent and exhausted. Till then the parents have been fighting on with their nursing: soothing, caressing, encouraging their little one, and hoping against hope seems all that is left to them. And there sits their friend—the gentle doctor—watching with them, and still puzzling his brains to think what more he can devise to stay the lamp of life from flickering out. He is no courtly physician, no London specialist, that man (thank God!). He is only a country doctor. But his somewhat rugged face tells of honesty, and common sense, and self-reliance, and gentleness. What more do you want? The men that look like that man, whatever be their business or trade or profession, whatever be their wealth or their social position, I say, of such men is the kingdom of heaven.” The original picture is now in the Tate Gallery, London. We do not pretend that the majority of physicians are saints or heroes; but we do contend that the practice of our profession furnishes grand opportunities for good work in the interests of suffering humanity. We are proud to think that in all parts of Canada there are physicians who make the most of such opportunities.

Some may wonder whether Fildes' doctor will continue to exist. We are told that therapeutics is becoming unpopular because there has been in the past, and is now, too much empiricism in our methods of treatment. The all-important subjects among the final branches are diagnosis, prognosis and pathology. It is supposed by some that the “McClure” and the “gentle doctor” will go out of fashion, and that the modern physician will struggle longer and puzzle more over his diagnosis, and, then in a case such as Fildes' sick child, he will turn to the mother with a bland smile on his wise face, and say to her: “Madam, this is really a most interesting case. It has been very puzzling, but I am pleased to be able to say I have made a diagnosis and prognosis. This child has malignant endocarditis and will die in about five or six hours. I can do nothing more for you now, but I shall call in the morning to make a post-mortem examination.”

One of the most vexed questions of the present day is the preparation of general practitioners, *i.e.*, methods of medical edu-



education. In recent years there have been many discussions on the subject in the British Medical Association. I am glad that our friend, Dr. J. C. Connell, of Kingston, will read a paper on the subject at this meeting. The amount of work in all departments of medicine has increased so enormously during recent years that students are bewildered, confused and disheartened. The students of to-day bolt more, and cram more, and observe less, and think less, than did those of ten to twenty years ago. There seems to be little continuity between the teaching of the primary and the final subjects. In the early years the students are now swallowing pure and applied science in masses too big for their assimilative organs; or, in other words, are largely memorizing facts without understanding them. It is believed by many that this unfortunate condition of things exists in many, if not most of the best medical colleges in North America, as well as in the old world. It would appear that the level-headed Britishers are realizing the situation more fully than the teachers of any other countries.

Francis Shepherd, of Montreal, in his presidential address before this Association in 1902, referred to certain defects in modern laboratory teaching. There is probably no man on this continent who understands this subject more intimately than he from two standpoints—the scientific and the practical. He expressed the opinion that in many of our modern hospitals with their laboratories “students are not taught to observe so carefully the evident symptoms of disease, and are becoming mere mechanics. . . . The higher and more intellectual means of drawing conclusions by inductive reasoning are almost neglected.”

On the other hand we have scientists who think that such ideas are entirely wrong and not even worthy of consideration. Some of our advanced educationalists are even growing a little tired of Johns Hopkins, because those Baltimore men still stick to the old-fashioned idea that the student should be encouraged to observe and think and reason. We are told that they hope soon to be able to manufacture machine-made physicians and surgeons who will be vastly superior to the home-made article.

As a matter of fact, the differences between the schools of thought commenced many years before Shepherd sounded his note of warning. About fifteen years ago the late Sir George Humphry, Professor of Anatomy, Cambridge University, in an address delivered in Oxford, spoke as follows about methods of teaching medicine: “There is too great a mass of facts heaped on the memory and too little reflection on them. . . . The sciences of physiology and histology have become, and those of pathology and

anatomy are becoming, more separated from medicine, delegated to special teachers, doubtless to the advantage and width of scope of these sciences, and to the greater knowledge of them, but I fear there is hereby engendered a tendency to take the student too far afield. . . . It is apt to lead too much to meandering in altitudes, too little to straight going on *terra firma*; too much to pride and obtrusiveness of supposed higher knowledge, too little to reasoning, and too little to power by reasoning upon simple data, and too little to that sort of reasoning which constitutes the basis of common sense. The scientific and the practical, in short, become too much separated. What is needed is a greater regard to that connection between the two which should be maintained through the whole period of study." If these opinions expressed fifteen years ago were correct, they will apply with still greater force to the teaching of to-day. Let us come to more recent times—especially the last two years.

Let us quote from a physiologist of high repute. Professor Ernest Sterling, of University College, London, during a discussion at the meeting of the British Medical Association at Sheffield in 1908, said: "The tendency for anatomical education to be imparted by professed anatomists has led to increased demands upon the student in the way of accuracy of knowledge. . . . Pharmacology is practically a new science. . . . The work demanded of a student has practically doubled in amount and is steadily increasing. What is the result? We are trying now to get two pints into a pot that formerly held one. . . . The result is that the student is over-burdened from the very beginning of his career. In his first year we try to make him a man of science. To this end we stuff him with facts and absorb the whole of his time in classes, so that he has no leisure for independent thought."

The following extract is taken from a leading editorial in the *British Medical Journal* last April: "Biology as taught by non-medical biologists must go. All the biology a student wants can be given him in his physiological and anatomical courses and in the study of parasitology and helminthology under the pathologist. Chemistry in the future must be taught by the physiological chemist, and physics by the physiological physicist, by medical men who have gone through the whole training and know the needs and aims of practical medicine. . . . In anatomy great reform is needed, for the size of the present text-books, and the mass of useless detail required, has reached the limit of pedagogic absurdity."

While our college professors are studying methods in medical education, many of our general practitioners are watching the

situation with a very deep and intelligent interest. We think the majority of physicians consider it unwise to endeavor to stuff a quart of material into a pint pot. Many of them also believe that our teachers should teach less in order that our learners may learn more. A certain proportion favor Fletcherization because of their belief that the intellectual pabulum given to our students should be properly digested and thoroughly assimilated.

By a process of evolution the general practitioner frequently develops into a specialist. We have also the ready-made specialist, to whom reference has previously been made. The relationship between the general practitioner and the specialist has been much discussed in the past. Dr. Matthew D. Mann, of Buffalo, read a paper last February on "Dichotomy" or "Dividing Professional Fees." It would appear from what he says that a large proportion of surgeons in the United States are in the habit of giving percentages or commissions to physicians who send them patients, without the knowledge of the latter. I hope it is not necessary to tell members of this Association that such conduct is undignified, unethical and dishonest. It is quite true that the division of fees between the general practitioner and the operating surgeon is frequently or perhaps generally unfair to the former. How can a more fair division be made? We are inclined to think the general practitioners must find that out for themselves. At the present time the relationship between general practitioners and specialists is being considered by a strong committee nominated by the Medical Society of the County of Erie, New York. We shall look forward to their report with much interest.

The general practitioner takes great interest in the work of the specialist. When he goes into a modern hospital theatre while a surgical operation is being performed he beholds something which fills him with wonder and admiration. He asks: "What are these which are arrayed in white robes? and whence came they?" The master of ceremonies answers: "These are they who have discovered something 'more rational' than antiseptic surgery as practised by Lister." The general practitioner does not object to a uniform. The surgeon may wear a nightcap, a mask, a nightgown, mittens and top boots in his well-equipped hospital with all sorts of new apparatus and laboratory appliances if he pleases. There is grave danger, however, that the undue exaltation of modern histrionics may overshadow the real essentials in connection with the prevention of sepsis. We want men of the Lister type to teach our students and practitioners. The wondrous charm of Lister's simplicity in his methods of teaching and operating is one of the most

delightful things the world has ever contemplated. Some of our shining lights nowadays, in hospitals and medical societies, appear to aim at giving exhibitions of their skill instead of imparting some practical knowledge to the everyday doctor—knowledge that will help him while working on the side lines or in the backwoods, where theatrical costumes can scarcely come into general use.

When His Majesty our late king came to Canada in 1860 he travelled from the far East as far West as our railway trains could carry him. That far West was Sarnia, in the Province of Ontario. If he had returned twenty-five years later he might have travelled more than two thousand miles further west to a beautiful town called Victoria. There are now in that great Western district populous cities and towns in all parts, well-cultivated farms, with an active, intelligent people building up one of the greatest countries in the world.

That great new country has helped this Association very materially during the last twenty years. The crowning result appeared last year when there was held in that modern, beautiful city, Winnipeg, the largest and most successful meeting our Dominion Medical Association has ever known. We slow, sleepy folk of the East respect our brethren of the West because of their ability, we admire them because of their untiring energy, we love them because of their big, warm hearts, we enjoy their generous hospitality beyond expression. We are becoming infected with something akin to their boundless enthusiasm. Especially is this the case in connection with the question of Dominion registration.

The discussion on this subject in Winnipeg was one of the best that has occurred during the last twenty years, and the address delivered by Dr. Thornton, of Deloraine, Manitoba, was one of the best our members have ever heard. He directed our attention to the national side of the question. He told us that "Canada has made great strides towards nationhood in many of the important details of national life, but in the practice of medicine this ideal was no further advanced than in 1866, when Confederation was accomplished. The Provinces were to-day as widely separated as if they flew different flags. There was no such thing as a Canadian physician or a Canadian Medical Association in the broad sense of the terms." We are glad to know that that broad, public-spirited member of our profession, of whom we are so proud, Dr. Thos. G. Roddick, is still taking a very active interest in this question; and we sincerely hope, both for his sake and our own, that his magnificent work will soon meet with the success which it so richly deserves.

This Association is growing not only in numbers, but also in the



sphere of its work. We are now considering many matters of vital importance to the people of the whole Dominion, chiefly in the direction of the physician's noblest and most unselfish work—the prevention of disease. We shall have the pleasure this afternoon of learning something respecting the invaluable work accomplished by one of our committees, known as the "Milk Commission," during the past two years, under the able chairmanship of Dr. Chas. J. Hastings.

It would be interesting to give some account of the work done by our Executive Council, the various standing committees, the committee having in charge the establishment of a journal, the local committees, and many individual members in all parts of this big Dominion during the past year. Your President on this occasion, however, cannot find words to describe their work in a fitting manner. Even if he were inclined to undertake such a task the Committee of Arrangements has not given him a sufficient number of hours to accomplish it.

We are all happy now over the present condition of our Association. We are filled with hope for the future. We are becoming national in the true sense of the term. May I add—we are growing more imperialistic. We really want not only Dominion registration, but also reciprocity with the profession of our dear Mother Country. Although we are plunged in grief over the appalling calamity that has befallen our great Empire, our wish, our song, our hymn, our prayer is still—God save the King.

## WRIGHT'S OPSONIC METHOD AND VACCINE THERAPY.\*

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BY CAMPBELL LAIDLAW, M.D., OTTAWA.

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The subject which you have kindly asked me to join with you in discussing this evening is one which has been followed during the past two or three years with a sort of romantic as well as a truly scientific interest among physicians and surgeons the world over.

So broad in their significance are the principles involved and so far-reaching the aims that an attempt to treat of the subject during an introduction to its discussion in any but the most general terms is out of the question. However, in so far as may seem appropriate, we shall try to touch more or less explicitly upon some of its salient features.

More than a century ago the investigations of Jenner resulted in the discovery of a means to produce an artificial immunity against smallpox. Since that time many attempts have been made to bring about an active physiological prophylaxis in other diseases, but not until Koch introduced his tuberculin treatment of tuberculosis have any efforts been put forth which aimed at securing what might be termed "an autogenous cure arising in an infected body." Although Koch's practice of inoculating with bacterial elements fell far short of realizing happy results, his idea in regard to stimulating the body cells to cope with disease by introducing into the body the elements of disease, paved the way for Wright's opsonic theory and his system of vaccine therapy.

As to the possibilities attending these, much is hoped for, and whether or not we are in agreement with those who claim for them such a glowing outlook, yet we must all concede a large measure of truth to the words of that bacteriologist who said, "The seed he (Wright) sowed has flourished greatly, and it would appear that to a new, to a scientific system of medicine, the impulse has now been given. The medicine of the future is the medicine of vaccines and of sera. The empiricism of the past will give way to methods based upon scientific knowledge, and the public will no longer look upon medicine with a sceptical eye and dose themselves with ineffective nostrums. The surgeon will triumph where now

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\*Paper introducing the discussion, read at the Canadian Medical Association, Winnipeg, August, 1909.

he fails, and armed with additional power he will not fear the inroads of bacterial invasion."

But, turning from this somewhat poetically expressed opinion, what, we ask, are the meaning and value to us of that which calls it forth? We must find our answer in looking first of all to a definition of the opsonic theory and then contemplating its significance in practice.

Briefly stated the theory is, that amongst the various protective substances in blood there are resident in the serum certain antibodies (named by Wright "opsonins"—a word derived from the verb *opsono*—"I prepare food for"), which, when in combination with bacteria, render them a prey to phagocytes, and without which there can be no phagocytosis, that there are various kinds of opsonins, each kind being specifically related to some species of pathogenic organism, so that according as there is a greater or less amount of a particular opsonin present in any serum so will that serum be correspondingly the more or less fit to battle with the associated organism.

By ingenious methods Wright has devised a means for the comparative estimation of this opsonic content in serum. In the matter of this determination we proceed upon the assumption that the reason for the phagocytic capacity being the same in the case of different sera is that in these sera there are respectively equal amounts of the opsonin necessary to produce phagocytosis.

From our assumption we infer that sera from individuals whose degree of phagocytic activity is the same in the case of a certain bacterium contain in equal measure the opsonin which is specific for that bacterium, and accordingly that by a comparison of various phagocytic counts we should be able to compare the opsonic contents in different sera.

On the ground of such a comparison it is concluded that where opsonic contents are the same in the sera of individuals free from the disease which a bacterium is wont to produce, they are *normal* opsonic contents—also that variations from the normal indicate a reaction of disease peculiar to that bacterium; in short, that an abnormal opsonic content betokens disease, either past, present, or impending.

Now, by a comparison of phagocytic counts we can express these percentages of opsonin in different sera in terms of the ratio of opsonic content unit volume of these sera to that of sera from normal persons. Thus expressed the ratio *abnormal* represents what Wright calls the "opsonic index."

It cannot be presumed that the index is an exact interpretation

of the opsonic content of the blood, for never can it be said for a certainty that the controls used are constant, nor can technique be assumed to be accurate throughout.

However, it will surely be granted that reasonable approximations to accuracy are worthy of acceptance. Such a conclusion is surely justifiable in view of the numerous investigations extending over some years and relating to the same controls' and patients' serum, which have been convincing of the fact that the extent of error can undoubtedly be made to lie within the limits .85 and 1.15.

What is of greatest concern in a contemplation of the index is, naturally, its significance as a guide to us in the understanding of disease. If it can be made plain that the index is undoubtedly of value in elucidating conditions not clearly understood, in rendering diagnosis and prognosis more certain, and in opening up new avenues in therapeutics, then must it be granted that the opsonic index is a most important asset in the study of pathological conditions. With a view to ascertaining whether or not the index is to be looked upon as such an asset, some observations made during the course of clinical investigations may be of service to us as illustrations:

(a) An individual was tested for his opsonic power to *staphylococcus pyogenes* daily for three weeks. For the first two weeks the index (a pool of two assumed normal sera being used as a control) was normal.

At the beginning of the third week a fall in the index was noted and for three days following there was a persistent fluctuation at a low level. On the morning of the fifth day following it was found to be slightly above normal, and the sixth day showed a still higher elevation. On the seventh day there was a drop again to a point below normal, but on the eighth day the normal level was again reached, and throughout the remaining days until the end of the fourth week there were no deviations from the standard set by the control.

The variability became for us an important phenomenon when found to be synchronous in its duration with a coccogenic infection in the individual characterized by staphylococci present in luxuriant growth. But as to whether or not the fluctuations were dependent upon the pathological condition was held to be open to doubt until numerous determinations relating to many cases, of which the above is a type, rendered a definite conclusion in the matter justifiable—the conclusion being that the two phenomena, viz., the index changes and the presence of infection, were interdependent.



(b) In a case of gonorrheal arthritis the index to the gonococcus was taken twice a week for a period of four weeks. In no instance was the index found to be normal. On the other hand, it showed marked deviations, represented by an index line which extended from points far below to points considerably above the normal level—a condition typical of several others similar to it, which were kept under observation for some time.

(c) In various cases of streptococcus infection the index was found to show fluctuations until the patient ceased to show evidence of disease.

(d) In a case of tetragenus infection (from which the coccus had been isolated) many determinations revealed continued departures from normal.

(e) In many cases studied, in which a diagnosis of tuberculous infection was indisputable, the index was found to be continuously inconstant—at times remaining either steadily low or steadily high or occasionally being at the normal level.

In short, the same rule obtained in every case studied, viz., the serum of infected individuals showed an abnormality in opsonic content for the particular organism causing the infection, whereas non-infected persons gave no indication of inconstancy in the index.

From this we infer that the opsonic index may be made to serve as a valuable aid in diagnosis.

This consideration of variable indices and their bearing upon diagnosis leads us to the question of treatment with the opsonic indications as a guide.

In dealing with this aspect of the subject we must disabuse our minds of the erroneous idea which has gained such wide prevalence, that opsonic therapy is a branch of medical treatment limited to the injection of vaccines.

Wright's system of therapeutics amounts to considerably more than the mere introduction of bacterial elements. So broad, indeed, is its scope that it reflects every rational procedure ordinarily exhibited in the treatment of infectious processes, *e.g.*, the well-known treatments of rest, suitable diet, massage and graduated exercise, fomenting in the case of inflammations, the excision of offending parts, the proper drainage of abscess cavities and sinuses, special medicinal remedies for ensuring the highest possible standard of metabolism—in short, every scientific measure aiming at the conservation of tissue vitality, the limitation of morbid activity at the site of pathological lesions, and last, but not least, the bringing of blood richly laden with protective substances to foci of infection.

The reason in such a breadth of view becomes quite evident when we study the meaning of inoculations.

That "to every infective process the vital forces of the body show a reaction" is the primary law in the study of immunity.

Immediately that micro-organisms gain access to the tissues their presence calls forth from the tissues certain immunizing responses, that is to say, some element associated with the infecting organism must be directly responsible for stimulating the body cells to elaborate protective substances. In the case of opsonins we find that an infected individual illustrates the validity of the rule in the state of his index. Provided the stimulations are moderate, *i.e.*, provided the infection is slight, we find a high index. On the other hand, if the bacterial invasion is gaining such ground as to produce toxic stimuli so excessive that they depress the functioning activity of the opsonin-forming cells, we look for a low index. In speaking of infections, then, we say that continuously high indices are dependent upon moderate *auto-inoculations* and that a continuously sub-normal index is the result of excessive *auto-inoculation*.

Now, what of fluctuating indices in the case of infected individuals? It has been shown that any disturbance of a focus of infection, *e.g.*, passive movement in the case of a chronic arthritis, massage of an orchitis, much use of the voice in a laryngitis, the X-ray treatment in lupus, the application of Bier's bandage, increased respiratory activity in pulmonary tuberculosis—in fact, that any sort of disturbance whatever results in the patient being *auto-inoculated*.

Hence, if the disturbance be applied from without in accordance with an accurate judgment of the index phases dependent upon it, great benefit may result. Along this line special advantage has been taken of *auto-inoculations* by Dr. Inman of the Brompton Hospital for Consumption, where he has treated with extraordinary success many pulmonary cases by his system of graduated exercises. The method consists in making the patients undertake some form of work which will be just sufficient to produce (by disturbing the disease focus) *auto-inoculations* to which the tissue cells will react favorably, this reaction being satisfactorily gauged by frequent references to the state of the opsonizing function. The necessary determinations of the index show it to be fluctuating in character, *viz.*, slightly down immediately after exercise, owing to the temporary shock sustained by the tissue cells through sudden action upon them of the bacterial elements; up, some time following the

exercise, owing to the beneficent influence of the moderate degree of stimulation.

So much for a brief outline of auto-inoculations.

Artificial inoculations can now be understood, for in introducing bacterial elements from without in the form of emulsions of killed micro-organisms, we are simply doing what nature would strive to bring about in every case, viz., giving in measured dosage toxic stimulation to tissue cells with a view to an abundant production of opsonin.

After an artificial inoculation properly gauged we find a fall in the index just as after an auto-inoculation, then a rise, then possibly a period of sustained elevation—these three phenomena corresponding respectively to what Wright terms the negative index phase, the positive phase, and the positive phase plateau.

From the foregoing considerations we must now be aware of what cases, ordinarily met with in practice, are such as require treatment by the inoculation method, whether it be applied by injection or otherwise. Broadly speaking, in the light of present-day medical knowledge, most localized infections associated with a low auto-inoculating activity would seem to *demand* treatment according to the opsonic system of therapeutics. The work of the past three years at Wright's laboratory and clinic-room has shown beyond a doubt that, for tuberculosis localized in glands, joints, the skin, muscles, bones, and the genito-urinary organs, treatment by the inoculation method is the safest known—that, furthermore, chronic inflammatory lesions of nearly every kind will invariably show decided and marvellous improvement under vaccine treatment judiciously applied—that sufferers from hitherto almost intractable forms of disease, such as acne and furunculosis, may learn to look upon killed bacteria as their specific remedies; that pretty nearly every kind of infection at some stage in its progress is amenable to treatment by emulsions prepared from the causal micro-organism.

It is only reasonable that you should expect me to refer more specifically to matters of treatment. During the past couple of years, while a member of Sir Almroth Wright's staff, it was my privilege to investigate many cases which presented features of extreme interest in the field of vaccine therapy. Reports of such cases, however, coming from the pens of those whose work lies in London, we are all familiar with, so that I shall avoid redundancy as much as possible by quoting from that part of my own experience which embodies practice of the methods in Canada.

Since the middle of January of this year I have followed closely the condition of a patient who for two years past has

suffered from genito-urinary tuberculosis. When referred to me for treatment this patient, a stenographer, male, aged 26, presented all the features of a well-defined, actively progressive case, showing marked involvement of both testicles and well-advanced ulceration of the bladder.

For three months pain in the swollen and nodulated left testicle, which radiated along the cord, has been a prominent symptom. The frequency in micturition was at night—five to seven times, while pus continuously rendered the urine almost milky in appearance. About every two weeks blood would be passed. There was no emaciation, the appetite was good, and the patient, who was afebrile and of normal circulation, had always felt fit for work, excepting for the inconvenience caused by the pain and frequency of urination.

A dose of 1-10,000th milligramme of tubercle bacillary emulsion caused a slight clinical reaction in temperature and index (the latter going up from .65 to .95), while the immediate effects upon the pain and frequency were most gratifying. The pain, which opium had failed to control—at first rendered more intense during the short negative phase following the inoculation, disappeared entirely for a week—the frequency at night came down to twice a night for six days, and the urine became almost clear, being voided without distress. This is the record of inoculation No. 1. Since January there have been 26 inoculations in all, very few of which, however, have given such satisfactory results as the first. Until a month ago the patient continued at work, walking five miles a day to and from his office, suffering very severely at times when an inoculation had spent its strength, and often being worried greatly by frequent micturition. During May the patient received no treatments by inoculation, and it was not until the middle of last month that he was back again to fair relief from pain and his comparatively slight frequency of once or twice at night.

For the past few weeks the patient has been resting with a view to reinforcing the effect of the vaccine. His daily record, kept by himself, now reads: "Twice out at night, an easy day, urine coming away clear and without pain." He has gained seven pounds in weight since April, despite the fact of his stomach having been always strong and his appetite a good one.

Mention has already been made of the importance of frequent references to the state of the opsonizing function, but in quoting this case you may notice that only once has the index figured in the record. This does not mean that the state of the index has not played a prominent part in the treatment, but rather that on



account of several thousand of determinations in other cases, I have been led to the attempt of forming a judgment of the state of the index in this case from a survey of the clinical symptoms.

It has been my method to make the reactions as indicated by temperature, pulse, etc., as slight as possible, by employing at the first minimal doses of the vaccine and gauging the increase in dosage by the positive and negative phases—not by the mechanical rule, advocated by some, of “gradual progression.” I have found in many instances that whereas a patient may at one stage of the treatment be able to stand a dose of 1-5,000th mgr. of bacillary emulsion, at a later stage (when we should expect him to react favorably to a much larger dose) he will experience too great a negative phase from a dose as small as 1-10,000th mgr. This finding alone is sufficient in my opinion to condemn the German method of “gradual progression” as dangerous and unscientific.

As to the kind of vaccine which gives best results in tuberculous cases, is a question still to be settled. Certain it is, however, that we can make no mistake in continuing to use a strain of tubercle bacillary emulsion or of tuberculin in any individual case which elicits satisfactory responses from the first in that case. I have found this course to prove much more satisfactory than that of changing from time to time to different strains in the hope of finding “something which will work still better.” In speaking of “strains” of tubercle vaccine, let me refer to some instances where the effect of bovine tubercle bacillary emulsion has proved noteworthy.

(2) A farmer, age 43, suffering from cervical adenitis, consulted me in March. For four years he had been troubled with a mass of swollen glands on one side of the neck, having already had two operations. When he came for treatment the mass at the anterior border of the sterno mastoid was the size of a tangerine orange, quite hard and immovable. At the posterior border of the muscle was a sinus two inches in length which represented the site of the first operation wound. The sinus had been discharging freely for two months. A history of contact with tuberculous cattle at the time of the original infection led me to employ a bovine strain in dealing with the case. At the end of the first week of treatment the sinus had closed and the lump softened. At the end of the second week the lump had gone down to half its original size. At the end of the fifth week the lump had entirely disappeared. At the end of June there was a slight swelling about the size of a hazel-nut noticed at the edge of the cicatrix, but this disappeared in a week with a dose of 1-20,000th mgr. of the emulsion. When the patient

was seen about two weeks ago the neck was normal, excepting for the operation scars, and it was gratifying to hear from the patient that he had not felt so well for years. The index is now 1.10. It was .65 before the administration of the first dose. In all, only five inoculations were given.

(3) F. M., dairyman, with hard swelling under left ramus, which had been the size of a hen's egg for two years, consulted me in March. His history was tuberculous. In this case I used the bovine strain. His general condition (he complained of always feeling run down) improved greatly, and at the end of nine weeks' treatment the swelling had become soft and gone down to about one-fourth of its original size. I have not seen the patient for two months. His opsonic index was when last seen .95. Before the treatment it was .70.

So much for tuberculous cases, of which the above are typical in results of a good many which I have had the opportunity to investigate in Ottawa. Time and my assurance that this paper would deal principally with generalities constrains me to be thus fragmentary in the citing of them. As to others representing other varieties of infection, we must leave them for further discussion. Suffice it to say that I for one have had reason to be surprised with the results obtained in the use of killed bacteria and their products. We, no doubt, have all seen the man with his long-standing affliction of boils respond to the staphylococcus vaccine in a remarkably short time; cases of gonorrheal arthritis yield readily to the inoculation of killed cultures of the gonococcus; indolent sinuses close after a short period of treatment under emulsions prepared from the causal micro-organisms; in fact, many phenomena which prove the value of Wright's system. In surveying the vast field of bacterial diseases are we wrong in saying "The end is not yet?" To be sure much is yet to be hoped for from the laboratory worker, but for the present are we not right in urging that the attention of the physician and surgeon be more specially directed to view the advantages in a system which can no longer be lightly regarded?

## SOME QUESTIONS OF GENERAL ETHICS ARISING IN RELATION TO PSYCHOTHERAPY.

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When an expert is called upon by the general community to give advice on a matter relating to his sphere his action is frequently confused by a conflict of interests, which we may term technical and non-technical respectively. An engineer or teacher, for instance, has frequently to formulate his advice partly on technical grounds, and partly on financial. This is necessarily the case, and the chief point the expert has to pay attention to is that he shall keep the different grounds distinct in his mind, and not allow his judgment on one ground to be affected by his judgment on another. His final conclusion should be a combination of the conclusions separately arrived at by distinct trains of thought, each of which has received its due consideration, and not the result of a confusion of these.

Members of such professions as the medical, legal and clerical, which come in contact with the most intimate affairs of human life, are subject to the same necessary restrictions when formulating their conclusions as to a course of action they have to advise on, and especially often have they to take into account what are called moral considerations. They are, therefore, at times brought into relation with moral questions concerning which the views of the community are in a state of transition, and are sometimes placed in the difficult position of being expected to define their attitude towards one of these. It is interesting to note that, with certain exceptions, these three professions, being essentially stable, responsible, and therefore conservative, tend on the whole to lag behind in the general moral progress of the community; that is, they characteristically prefer to defend older and established conventions rather than to further the adoption of newer ones. There is, it is true, a distinction to be drawn between their attitude towards what may be called the "restricting" type of moral progress and that towards the "enfreesing" type, it being much more actively sympathetic in the former case. The restricting type of progress consists in recognizing that a course of conduct previously regarded

as moral is really of an immoral nature. A good instance of this is the gradual recognition of the fact that employment of child labor in unhealthy factories ("child slavery") is immoral, and should not be allowed by the State; the medical profession was relatively active in bringing about this step in moral progress. With the other and more important type, which consists in recognizing that a course of conduct, *e.g.*, Sunday travel or the reading of books on Darwinism, which was previously regarded as immoral, is really nothing of the kind: the three professions in question take up a much more passive attitude, and almost always follow the lead set by the general community.

Amongst the moral questions encountered by the physician are many that relate to the sphere of sex, and my reason for writing this paper is that, owing to the following circumstance, I have had in this connection a rather considerable experience; the attitudes dictated by that experience may prove interesting to fellow-practitioners. I hold, namely, the view that the fact of a malady originating in sexual disturbances is no reason for refusing to treat it on the same rational lines as we attempt with other maladies, that is, with due regard for the aetiological factors. Because it is generally thought wicked to suffer from syphilis is, to my mind, no reason for withholding treatment for it, nor do I think it the physician's place first to decide how far the malady was "wrongfully" acquired, or how far "innocently." In internal medicine this claim is now commonly conceded, but in certain branches of neurology, with which this paper is concerned, it is still largely denied.

The first maxim I would submit is that *no line of treatment should be advocated which is contrary either to the moral views of the patient or to those of the general community.* This assertion will, I am persuaded, meet with such general acceptance, as being in line with the current code of medical ethics, that it need not be reinforced by any argument. Unfortunately, however, the matter is not so simple as to be regularly capable of solution by reference to this maxim, although this should always be given prime consideration. In the first place the question may relate to moral views that are not fixed; or those of the patient may be at variance with those of the general community. Take, for instance, the case of a Protestant physician practising amongst a population that is mainly Roman Catholic, such as in Paris, and called in to attend a case of labor in which craniotomy, an operation forbidden by the Catholic Church, is from a medical standpoint definitely indicated. He may not know the patient's religious views, nor how fixedly she



would adhere to them on such an urgent occasion. The maxim stated above would prevent his urging the operation, but most of us would not think he acted rightly unless he at least laid the matter before the patient and left the decision to her. From which it appears that we may complete the first maxim by a second, to the effect that *in doubtful cases the decision should be left to the patient.*

So far we have considered the matter purely from the moral, or non-technical, standpoint, for this certainly in many cases demands the chief place, but the medical, or technical, standpoint also deserves consideration. When the conclusions reached on these grounds are in harmony with those reached on moral grounds our course is agreeably simple, and there is certainly a tendency in the profession to shirk difficulties by allowing the latter ground to affect our judgment in regard to the former, so as to bring the two into line. Yet it cannot be denied that the two by no means always coincide, as is shown by the instances just quoted, the social one of child labor, and the individual one of craniotomy. This must of necessity sometimes be so, inasmuch as progress in medicine and in morality is evolving along relatively independent paths. In such cases it is urgently desirable to weigh the merits of any given advice separately from a medical and a moral standpoint, and to formulate our final conclusion after fully considering those indicated from these distinct standpoints. For, apart from moral considerations, we should never forget that when a patient consults us on account of ill-health we have medical obligations towards him which it is our bounden duty not to ignore. Let us take a concrete instance, of a kind not very rare in neurological practice. In treating a patient for a neurosis it may become evident to us that the main source of the trouble lies in irremediable marital relationships and that we have every reason to believe that a separation or divorce is the only thing that will restore the patient to health. Such a course is in many communities repellant to the general moral views held, and it may be to those held by the individual patient. Yet if we wish honestly to discharge our medical duty it is surely obligatory on us to inform the patient of the state of affairs, and to leave to him the choice between the action in question and the malady. It is never our place to sacrifice medical considerations to moral ones, any more than it is to sacrifice moral considerations to medical ones. The patient has an equally inalienable right over both his health and his moral views, and the final decision here, as everywhere else in medical treatment, must lie with him; he has, and should have, the right to accept or refuse a proposed surgical

operation, for, after all, the medical man is only the adviser, never the arbiter.

The foregoing remarks may be illustrated by a few examples of a common kind, and first by one in which medical and moral conclusions are happily in harmony. I refer to the practice of masturbation. Although the evil consequences of this have frequently been greatly exaggerated, both in the medical and lay press, yet I personally feel sure that, particularly when the practice is carried on to excess, it is incorrect to describe it as harmless, and only recently took occasion to point out\* that it is one of the most important causes of true neurasthenia (as distinct from the other neuroses that are erroneously grouped under this name). For every reason, therefore, I would unequivocally say that it is wrong for a physician ever to countenance, let alone advise, the habit of masturbation. Of course, in treating such a case, particularly where there is a neurosis resulting from conflict and remorse, one ought to be tactful in dealing with the question; much harm can be done, and often is done, by frightening the patient as to dangers of the habit. I was disagreeably reminded recently of the difficulties one may encounter in dealing with such delicate matters. A patient, a widow of fifty, was sent to me suffering from a severe psychoneurosis (technically a *Quangisiresens*); she was morally and mentally sadly defective, and for all practical purposes insane. One of her symptoms was an acute dread of insanity, and on enquiring into the origin of this I found that she had for years been in the habit of masturbating, had read somewhere that it led to insanity, and since then had suffered from the fear of becoming insane. I naturally reassured her on the point, and told her that masturbation never led to insanity, a remark which gave her much relief. It was my intention to deal gradually with the habit later in the treatment, but for external reasons the opportunity never presented itself, and I afterwards learnt to my astonishment that she had told several friends that I had "advised" her to masturbate. Evidently the wish was father to the thought, and she had made use of my remark to salve her conscience and to give herself a feeling of self-justification and excuse. Unfortunately there are many unacquainted with the mental peculiarities of neurotics and the insane, who are simple-minded enough to believe all that such patients say of their physicians. This is a difficulty in medical practice that cannot always be avoided, with any form of treatment, and which the physician must be prepared courageously to face.

Another question, where medical and moral views are not so

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\*Canada Lancet, July: 19 9.

fully in harmony, is that concerning the prevention of conception. This course has frèquently been advised on medical grounds—I express no personal opinion in the matter, not feeling competent to form one—both on account of the offspring, as with epileptic or tuberculous parents, and on account of the mother, as in the case of an excessively small pelvis, Bright's disease, or of any other condition that might render a pregnancy dangerous to life. It cannot be said, however, that such conduct has yet been officially approved of by the community, although since it is practised at one time or another in the great majority of marriages it can scarcely be said to be contrary to the moral views that in fact prevail. Of the various means employed for this purpose, there can be no doubt that many, and unfortunately just those most made use of, are directly detrimental to health, and are responsible for a considerable class of the neuroses. When we are called upon to treat a patient suffering from this the question is sometimes asked: Have we the right to call his attention to the less harmful means available for this purpose, or would not this constitute an encouraging of immorality? Against this argument at least three points should be borne in mind. In the first place, when a married couple have, on economic or other grounds, decided to continue sexual intercourse while limiting the number of children, it is only very rarely that any medical advice to the contrary would be heeded, and the only result of our refusing other advice would be the continuance of the harmful state of affairs. In the second place, the practice is by no means so certainly immoral as its opponents make out: there is now in most civilized countries a strong eugenic movement which, on the highest moral grounds, advocates the replacement of quantity in children by quality, and lays stress on the importance of giving an adequate care and upbringing to the children born, which is often impossible if the family is too large. As was just remarked, the majority of people, though not openly supporting this movement, secretly practise its tenets. Last, and not least, is the question, mentioned above, of our medical duty to alleviate the patient's ill-health, one which it is a serious responsibility to avoid in such a condition as the present one, where the suffering is frequently very great and the cure easy. I must confess that I think the fairest course is to state the matter honestly to the patient, and to leave the decision in his hands: we are paid not only to preach morality, but also to cure disease. The only exception I would make in the matter is in the not rare case where the desire to prevent conception is solely due to a morbid fear of childbirth on the part of the wife, and where pregnancy might in other respects

be highly desirable. The fear is really only one symptom of a general neurosis, and such patients, of course, need psychotherapeutic treatment.

Lastly may be mentioned the group of cases in which we have every reason to believe that the need for sexual union is playing an all-important part in the causation of the symptoms, when the patient is a man who cannot marry or whose wife is an invalid. Illegitimate intercourse, though not illegal, is unquestionably viewed with official disfavor, in spite of the fact that more than fifty per cent. of sexual intercourse takes place outside of marriage, and that everywhere the unsatisfactoriness and inadequacy of our present sexual institutions and customs are widely admitted. For my own part, however, I hold that a physician should never under any circumstances advise such a course of procedure; the most that he might do is to state the facts fairly to the patient, and allow him to decide. In certain carefully selected cases this, I think, is justifiable, for I cannot agree that when a patient comes to ask us to help his sufferings we have the right to let our private convictions interfere with at least the possibility of such help. I would only add that in a great many cases it is possible by means of psycho-analytic treatment, and to a much less extent by certain other measures, to enable the patient to endure an abstinence that was previously detrimental: it is plain that such a patient should always be given the full benefit of such therapeutic measures.

In conclusion I would restate the proposition that in cases where the medical and moral indications do not coincide the final decision should, here as elsewhere in therapeutics, be left to the patient or to some responsible relative, after the dangers and objections have been fully explained to him. This practice is followed wherever any other indications conflict with medical ones, such as when a patient who needs a surgical operation insists on postponing it for business reasons, and it is one of general validity; to affirm the contrary would constitute an unwarrantable interference with the rights of the individual.



## Psychiatry

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W. C. HERRIMAN, ERNEST JONES.

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**The Thalamic Syndrome.** SMITH ELY JELLIFFE, *Med. Rec.*, Feb. 19, 1910.

This is a useful summary of the recent work done by Déjérine, Roussy, and others, on this subject. The chief symptoms of the Syndrome are: (1) a superficial persistent hemianesthesia of an organic nature, more or less marked for superficial sensibility, tactual pain, temperature, but always very marked for deep sensibility; (2) a mild hemiplegia, usually without contracture, and rapidly regressive; (3) a mild hemiataxia, and more or less complete ostereognosis; (4) severe pains on the hemiplegic side, persistent, paroxysmal, often intolerable, and not yielding to any analgesic treatment; (5) Choreo-atheloid movements in the members of the paralysed side.

A personal case is recorded, occurring in a man of forty, and a useful bibliography appended.

E. J.

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**Dementia Praecox.** An historical summary. SMITH ELY JELLIFFE. *New York Med. Jour.*, March 12, 1910.

Jelliffe gives here an extensive and learned disquisition on the evolution of the present conceptions of dementia præcox. After an interesting account of the earlier psychiatric views on the subject, he traces the historical development of those on the three main types of the disorder—the catatonic to Kahlbaum, the hebephrenic to Hecker, and the paranoid to Kraepelin, respectively. This development took thirty-five years, from 1863 to 1898. The clinical features of the different forms will be discussed in a future article.

E. J.

## Reviews

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*Outlines of Bacteriology.* By DAVID ELLIS, Ph.D., F.R.S.E.; Lecturer in Bacteriology and Botany to the Glasgow and West of Scotland Technical College, Glasgow. London and New York: Longmans, Green & Co.

Dr. Ellis has given us in this publication a treatise of moderate size, in which an introduction to Bacteriology in all its branches is dealt with. For students of technical and agricultural bacteriology, it should prove most useful, as the chapters on the processes of Nitrification, Fermentation, and the Biological disposal of sewage, etc., are especially well written. Physicians and other men who are interested in hygiene and public health will find the chapter on the biological disposal of sewage extremely instructive. We, as physicians, have confined ourselves almost wholly to the study of the pathogenic bacteria, and in this book Dr. Ellis has bridged the gap between these and other bacteria which are used in the various commercial and agricultural industries.

O. R. M.

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*Abnormal Psychology.* By ISADOR H. CORIAT. Moffat, Yard & Co., New York. 1910. Pp. 325. \$2.00 net.

This book is divided into two parts, entitled, respectively: I., The Exploration of the Subconscious, and II., The Diseases of the Subconscious. In the first half, chapters are devoted to: What is the Subconscious? Automatic Writing and Crystal Gazing; Testing the Emotions; Analyzing the Emotions; Sleep; Dreams; What is Hypnosis; The Analysis of the Mental Life. In the second half, the following subjects are treated: Losses of Memory; The Restoration of Lost Memories; Illusions of Memory; The Splitting of a Personality; Hysteria; Psychasthenia; Neurasthenia; Psycho-Epileptic Attacks.

As is well known, there are at the present day two schools of abnormal psychology—that of Janet, whose work has been extended and amplified by Morton Prince and Sidis, and that of Freud, supported by Jung, Stekel, Putnam and a great number

of other workers. Coriat, who is a pupil of the Boston School, largely confines himself in this book to an exposition of the Boston views, a task of which he excellently acquits himself. The occasional references to Freud's work are throughout superficial, generally misleading and frequently quite erroneous. This fact evidently makes the book a very one-sided account of abnormal psychology. It is undesirable here to enter into a discussion of the numerous points raised, but one must strongly protest against the absurdity of the author's description of a case here narrated, and of Prince's Miss Beauchamp case, as instances of psycho-analysis.

A number of original illustrative examples are given, the most noteworthy being an account of the author's observations on the pulse-rate during the association test, and a short description of an interesting case of multiple personality. The book is exceedingly elementary, possibly designedly so: but it can decidedly be recommended as being a worthy introduction to the study of this important subject. It is clearly written, well got up, and has a full index.

E. J.

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*Surgical After-Treatment.* By L. R. G. CRANDON, A.M., M.D., Assistant in Surgery at Harvard Medical School. Octavo of 803 pages, with 265 original illustrations. Philadelphia and London: W. B. Saunders Company. Canadian Agents, the J. F. Hartz Company, Limited, Toronto. Cloth, \$6.00 net; half-morocco, \$7.50 net.

This volume contains instructions concerning the treatment of, apparently, every possible condition which might arise in connection with an operation case. It begins with the sick-room, preparation of bed, charts, and the posture of the patient. The attendance on the patient during recovery from the anesthetic, treatment of thirst, and pain, is described. The technique of Crile's method of transfusion is described in detail. Diets, artificial feeding, use of the catheter, care of the bowels, post-operative pneumonia and hiccough are all dealt with at length. There is a chapter on bandaging, then one on the treatment of wounds. Bier's hyperemic treatment is described and illustrated.

Part II. is devoted to the special complications of certain operations, and in this part an especially interesting chapter deals with therapeutic immunization and vaccine therapy. This has been written by Dr. Geo. P. Sanborn, of Boston, and contains 170 pages. The last chapter deals with the Coley serum for malignant

tumors. The whole book enters thoroughly into detail; everywhere one notes the great attention to small points. It is well written and illustrated, and throughout many references are mentioned. It is a complete treatise on after-treatment.

W. A. S.

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*Duodenal Ulcer.* By B. G. A. MOYNIHAN, M.S. (London), F.R.C.S.; Senior Assistant Surgeon at Leeds General Infirmary, England. Octavo of 379 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1910. Canadian Agents, the J. F. Hartz Co., Limited, Toronto. Cloth, \$4.00 net; half-morocco, \$5.50 net.

This is a complete monograph on the subject of duodenal ulcer. The first chapter is devoted to the history; then follow chapters on ulcer following burns, complicating uremia, caused by tubercle bacilli, and occurring in the new-born. The next five chapters of the volume are concerned with the chronic ulcer, its symptoms, diagnosis, treatment, treatment of perforation, and a chapter on the pathology. The last 160 pages contain an appendix, with complete reports of 189 cases operated on up to the end of 1908. The book will prove of interest and instruction to all classes of medical men, since it brings clearly out what is known about a disease which is considered a rare one, but which is really not uncommon, and, as is stated in the preface, "its discovery presents no great difficulty to the trained clinician."

W. A. S.



# Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

**Medicine:** Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross, Wm. D. Young.

**Surgery:** Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

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GEORGE ELLIOTT, MANAGING EDITOR

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TORONTO, JULY, 1910.

No. 1.

## COMMENT FROM MONTH TO MONTH.

**Canadian Medical Association.**—Much of the success of the 43rd annual meeting of the Canadian Medical Association was due to the popularity of the President, Dr. Wright, and to the earnest and enthusiastic work of the various committees he was instrumental in having appointed. Toronto this year, and Winnipeg last year, have set a pace for the Canadian Medical Association other cities, even Montreal, will find difficulty in surpassing. When one comes to consider, however, that in a medical population of seven thousand, barely five or six per cent. can be got together at any annual meeting of the national medical body, one is compelled to wonder why. It cannot all be laid down to long distances to travel, for in a large city like Toronto, which has a medical population of some five hundred, a great medical meeting like this was should attract at least three-quarters of the population. Winnipeg did it last year—why not Toronto?

But some will say it is not numbers which make for the success of any meeting. True; but numbers evidence on the part

of the profession a desire to be *of* and *in* the medical body. It cannot be said that a \$5 fee would militate against the success of a meeting numerically, for over one thousand Canadians paid more than that to the meeting of the British Medical a few years ago. That would leave one to suppose that the magnetism of great names from abroad, with, presumably, better papers and discussions more valuable, had something to do with attracting the crowd.

Year by year, however, the Canadian Medical Association has been growing in numbers and in importance. It is to-day bigger and greater than it ever was, and the day has gone when a national medical body of its scope and character can expect to conduct its affairs upon a pay-as-you-go two-dollar fee. Then, too, it has come to be a problem of considerable material interest for any but the larger cities to handle a meeting of its growing size, and to entertain the increasing numbers in attendance year by year. That will necessitate more than ever a five-dollar annual fee; and now that the Association is an incorporated body, each member should pay, and even should be glad to pay, an annual assessment.

The Finance Committee should proceed to establish an annual collection of fees, whether a member has been in attendance or not. If they take hold of the matter with a firm hand, and proceed to do business right off their own bat; abandon the vacillating policy of the past, and find out the 1st of January, 1911, just how many of this incorporated society will remain members, they will know exactly where they stand, and where the so-called membership of the Association is.

The office of General Secretary has become a rather laborious job. With a five-dollar annual fee, the Association could well afford to pay a General Secretary what his services are worth, and have sufficient funds in hand to finance each annual meeting, so that local committees would be put to no expense whatsoever in regard to the holding of any annual meeting.

Now that the *Montreal Medical Journal* is to disappear in the *Journal of the Canadian Medical Association*, the subscriptions which such a high-class medical journal will command, outside the membership of the Association, together with the income from

advertisements, will be sufficient to finance the Journal of the Association and pay its editorial staff properly for their work.

We offer our congratulations to Dr. Macphail, who was unanimously and most enthusiastically nominated by the Association for the position of Editor of the *Journal*, and we wish him every success in the work which lies before him.

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**The Presidential Address** of Dr. Adam H. Wright, which we publish in this issue, is interesting and entertaining matter. It breathes a broad and liberal sentiment for Canada's national medical body. Of necessity, covering considerable ground, Dr. Wright touched upon different topics. That he has a warm spot in his heart for the general practitioner of medicine was evidenced at the very outset; and his references and quotations simply point to everyone doing his duty just as well as he possibly can do it.

A teacher in the University, his remarks on cramming carry weight. The young mind is one which is better adapted to learning by memorizing than through reading, observation and reflection. It is very apt to look for recreation of a pleasurable character when hours for reflection are provided; and most students like to get the whole thing off and over with and away. Then they reflect that they should have done more of it in their student days.

The division of fees Dr. Wright justly condemned as "undignified, unethical and dishonest." It is not in vogue to any appreciable extent in this country. We are very prone, we Canadians, to copy in many things from our neighbors and from others abroad. Probably it may come. The family physician, however, when he honestly knows his patient will do better under the skill of the specialist, mostly has little hesitancy in handing that patient over to the proper man. Specialism has brought in its trail, for which it is in no way responsible, an increasing amount of quackery. The general practitioner is the sufferer. Specialism has increased to an enormous extent in twenty-five years, while the working field of the man in general medicine continues to

narrow. An equitable understanding between specialism and general medicine would be a reference in all cases from the general practitioner to the specialist. People, though, choose for themselves mostly. Probably, as Dr. Wright suggests, the pendulum will yet swing back to the family doctor, and specialism will live and thrive upon his grace.

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**What the Mayor and City Council Can Do in the Prevention of Typhoid Fever** is the subject of a paper by Passed Assistant Surgeon L. L. Lumsden, published in the Public Health Reports of the U. S. Public Health and Marine Hospital Service.

That much of the diarrhoeal disease of infant and adult life, the dysenteries and typhoid fever will be prevented by a proper disposal of human sewage, there is now abundant and indisputable evidence.

It would appear wise, then, for a municipality to exercise the best of its wisdom in the spending of sufficient money to amply take care of its sewage. Its appearance means defective sanitation and defective civilization.

That the typhoid fever death rate in any community may be taken as a fair measure of the intelligence exercised in respect to sanitation in general by such community is now well established. Although convincing facts and much accumulated knowledge has been collected and published, the general public are scarcely yet fully seized of the fact that typhoid fever is a thoroughly preventable disease. It looks upon a certain amount of typhoid with complacency and something that has to be.

It seems simple enough that dejecta should be disinfected, and that the germs contained in excreta should be kept from being conveyed to healthy people. But, unfortunately, that is not the whole problem. The great danger is in the convalescent and the ambulatory, free from clinical symptoms, but nevertheless germ-carriers. So the sewage of all, sick or well, needs to be properly disposed. Again, the problem may not alone be a municipal one. It may be at times provincial, national or international.



The functions of the mayor and city council, the governing body of the municipality, are legislative, administrative and educative. A body of this character should know that the conservation of human health forms one, if not the first, business with which it has to deal. Disraeli once said, "The first duty of a statesman is the care of public health."

Herein, then, in typhoid fever prevention, lies a great opportunity for usefulness for municipal officers.

They should become informed as to the nature of the infection, its modes of spread, and the methods to prevent it; should make disease prevention a conspicuous policy of the administration; should make efficiency the primary basis of appointments to positions in the health office (specially applicable now in the case of Toronto.—Ed.); should provide adequate salaries for health officers; should appropriate funds for sanitary improvements as liberally as the taxation rate will permit; should provide for the collection of mortality and morbidity statistics, so that the results of sanitary work may be known; should provide for the proper care of the sick; keep in close touch with and support the health officer in his work; co-operate with the authorities of other municipalities, of the province and nation; teach by precept and example precautionary measures, as they are the chosen of the people to be the leaders of all that is good in and for the municipality.

## News Items

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### ONTARIO MEDICAL COUNCIL.

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FORTY-FIFTH annual meeting, Toronto, July 5th, 6th, 7th, 8th and 9th, 1910.

PRESIDENTIAL address delivered by Dr. E. A. P. Hardy, Toronto.

EXPENDITURE continues to increase. In 1909 the balance was \$48,359.41; in 1910 it was \$41,168.27.

OFFICERS elected: President, Dr. J. Lane, Mallorytown; Vice-President, Dr. R. J. Gibson, Sault Ste. Marie; Registrar, Dr. John L. Bray, Toronto; Treasurer, Dr. H. Wilberforce Aikins, Toronto; Solicitor, Mr. H. S. Osler, Toronto; Prosecutor, Mr. Chas. Rose, Toronto; Auditor, Mr. A. C. Neff, Toronto.

To reduce the membership of the Council seems a wise motion as was proposed by Dr. J. S. Hart, Toronto. As this is the last session of the present Council, the matter was left over for the new Council to deal with as they see fit.

DRS. LANE, Gibson and Hardy will be the Executive Committee for the ensuing year.

It was hot weather and a hot time over Dr. W. A. Young's editorials in the *Canadian Journal of Medicine and Surgery*. Dr. Young will be permitted to examine the books of the Council.

DOCTORS may advertise, but "it isn't nice." This means a card announcement, not a full page display in either daily or weekly.

Good thing to cut down the annual report of proceedings. Better still to issue it in two weeks' time instead of four months. Why should not the medical journals be furnished with a succinct report of important matters immediately after the close of the meeting?

CONCERNING Dominion Registration, Dr. Roddick's amendment as adopted at the Canadian Medical Association June, 1910, was unanimously approved by the Ontario Medical Council.

It would be a good step in the interests of medical students to leave the primary examinations to the universities.

THE Discipline Committee will consist of Drs. J. A. Robertson, L. Luton, Wm. Spankie and M. O. Klotz.

NEW examiners will be Dr. Brien, Essex Centre, therapeutics; Dr. Harding, Brockville, diseases of women; Dr. P. Stuart, Guelph, clinical surgery.

MEMBERS of Council are allowed \$10 for each half-day's attendance, with same amount for time consumed in reaching Toronto, together with 5 cents per mile for railway distance. Members of committees receive the same allowance. Examiners are paid \$20 per day and 35 cents for every paper over fifty marked by them. Oral examiners are allowed \$7.50 per half-day, 5 cents per mile and 35 cents a paper when examining written papers.

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A CORDIAL invitation is extended to the druggists, dentists and doctors of the Dominion to visit the city in September and take in the D.D.D. Lawn Bowling Tournament, which will, as usual, be held on the beautiful lawns of the Granite Club. Programs of the tournament will be issued later, and will be mailed on application to the Secretary, Mr. W. B. Graham, Registrar-Treasurer of the Ontario College of Pharmacy.

## Correspondence.

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### THE STATUS OF MEDICAL MEN UNDER THE NEW INSURANCE BILL.

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For upwards of three years this Act, in some form, was before the Parliament of Canada. Ample time was, therefore, taken to consider every section, and note carefully its bearing upon the interests affected. There was thus given also an opportunity for those who wished to offer any suggestions or raise any objection to place their views before the Government.

When the Life Insurance Bill was laid on the table of the House of Commons, it at once became apparent that there were three clauses that were very objectionable, from the standpoint of the medical profession. These clauses were in the first draft, and are still in the Act as passed by Parliament.

Under "Interpretation," or the definitions at the beginning of the Act, we have:

(h) "'Officer' includes the manager, secretary, treasurer, actuary, and any other person designated as 'officer' by the by-laws of the Company."

In section 98, sub-section 4, dealing with Life Insurance Companies that were in operation when the Act came in force, we read:

"The manager of the Company may be a director of the Company, but no agent or paid officer, other than the manager, shall be eligible to be elected as a director. The words 'paid officer' in this sub-section do not include the President, Vice-President, or the President and First Vice-President, if more than one, elected under the provisions of sub-section 9 of this section."

The next clause, to which objection was raised by many medical men, deals with Life Insurance Companies that may be organized after the passing of the Act. It is as follows:

Section 146, sub-section (f): "The manager of a Company may be a director, but no agent or paid officer, other than the manager, shall be eligible to be elected as director. The words 'paid officer' in this paragraph do not include the President and Vice-President, or the President and the First Vice-President, if there is more than one Vice-President, elected under the provisions of paragraph (k) of this section."



It became quite apparent that the purport of these clauses was to prevent any medical practitioner from being a director of the company for which he acted as medical advisor, if for such advisory work he received any remuneration.

Medical officers of the various companies in Toronto held a meeting and appointed Dr. T. F. McMahon and myself to lay their views before Hon. W. S. Fielding, the Finance Minister, and the Committee on Banking and Commerce, which was then engaged in the consideration of the bill, clause by clause, and also in the hearing of the opinions of those interested in the bill. Dr. McMahon and I visited Ottawa and laid the views of the medical directors, given us personally or by letter, from all over Canada, before the Finance Minister, Mr. Fielding, and the said Committee. What we said on that occasion is to be found in the proceedings of the House of Commons, and will stand upon its own merits.

In addition to this, many letters were written to Mr. Fielding and other members of the Government, and to prominent members of the Opposition, and also to many members of the Senate. All this had no effect, and the Insurance Bill was put through both the Commons and the Senate in the form as quoted in the foregoing clauses.

In the spring of 1909, it was expected that the bill would then be put through both Houses of Parliament. In addition to every effort that had been made, I sent the following telegrams:

Toronto, May 13th, 1909.

*Sir Wilfrid Laurier, Ottawa:*

I challenge the right of Parliament to say that the Medical Profession of Canada cannot be trusted. The Insurance Bill states this. It allows other classes to receive salary and sit on the boards, but forbids medical men doing so. The bill should be amended to remove this glaring injustice.

JOHN FERGUSON.

Toronto, 13th May, 1909.

*Hon. W. S. Fielding, Ottawa:*

The Insurance Bill does a great injustice to medical men of Canada. It declares them unworthy of trust and cannot sit on boards of companies if they receive any remuneration for services. Other classes may receive salary and sit on boards. This is taking away a privilege when no good can be accomplished thereby.

JOHN FERGUSON.

The bill was laid over, however, for that session, and came up again during the session of last winter. As the bill came back from the Senate, it contained the objectionable clauses, so far as medical men are concerned. I then wrote Hon. W. S. Fielding, who had charge of the bill, as follows:

Toronto, 5th March, 1910.

*Hon. W. S. Fielding, Ottawa:*

DEAR SIR,—The Insurance Bill is now about complete. On the whole, it is a good bill, and will do much for the interests of these great financial companies.

There is one phase to which I wish again to call your attention. The bill provides that only the President, the Vice-President and the Manager may be on the board and receive a salary.

The effect of this is to force the medical directors off the boards of their companies, because these gentlemen receive a remuneration for their services.

It does seem too bad that an entire class should be placed under the ban of the law in this way. The Act means that no doctor, because he is paid for his services, may sit on the board of his company.

Business men, lawyers, etc., fill the offices of President, Vice-President, and Manager, draw salaries, and sit on the boards of their companies. Not so with the doctor.

This is not fair; and I ask you if you think it is? If it is not fair and just, then change the bill to do the right thing by the medical men.

Yours truly,

JOHN FERGUSON.

The medical profession is now put in possession of the facts. So far as the Act is concerned, the meaning is quite plain that there is not a doctor in Canada that does not come under the penal terms of this Act. No matter what his interest in a Life Insurance Company, by way of stock or insurance, may be, the law states that he cannot sit on the board of directors, if he receives any salary for his responsible duties as medical officer of his company. The manager may receive any salary the company pleases to pay. So may the President and Vice-President. These gentlemen, in the eyes of the law, can be trusted to do their duty, and that the remuneration they receive will not blind their eyes; but not so in the case of the doctor. As soon as he receives a salary, he can no longer be trusted. He cannot hold a seat on the board.

This is, perhaps, one loophole through which the doctor may escape the penalties placed upon the whole medical profession by this Act. The first clause, which I have quoted, states that the word "officer" includes manager, secretary, treasurer, actuary and any other person designated as "officer" by the by-laws of the company.

If the medical advisor of any company can induce his board to pass a by-law to the effect that he is not an "officer," indeed, may be ranked with the office boy in status, then perhaps he may escape technically the meaning of this Act. This is doubtful, and may remain so until the courts decide a case. One thing is clear, namely, the Medical Advisor of a Life Insurance Company, if he is dignified with the title of an "officer," cannot occupy a seat on the board. No other class is so treated. While the bill was before the House of Commons and the Senate, a number, including the writer, made every effort to have the objectionable clause deleted from the bill, but without avail. Therefore it is that the whole medical profession is placed in a class by itself, and, in the eyes of the Life Insurance Bill, a disqualified class, or one of the rank of the office boy; that is, if the doctor is to hold a seat on the board of his company, and receive any salary, he cannot be called an "officer."

I am,

Yours truly,

JOHN FERGUSON.

264 College St., Toronto.

## Publishers' Department

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MODIFIED MILK POWDER (C.M.P.).—The Canadian Milk Products, Limited, are introducing through the Medical Profession a new infant food called Modified Milk Powder (C.M.P.). This is a modified milk in powder form, and has several advantages over any other prepared food on the market. The modification is made entirely with milk solids, and it contains no starches, either in natural form or in the form of dextrose. Neither has the food been peptonized or in any way pre-digested, and its easy assimilability is obtained only by making the food approximate closely to mother's milk. The amount of casein normal to cow's milk is greatly diminished, and the amount of lact-albumen largely increased. Furthermore, this food has two important advantages over any other prepared foods, in having the albumens uncoagulated and in retaining undestroyed the milk enzymes. The process by which this milk powder is made is the only one known by which the moisture can be entirely driven off without ever subjecting the product to a temperature approaching the boiling point. The result is that the food is a "live" food, and while guaranteed free from pathogenic bacteria, retains the valuable antiscorbutic properties of fresh milk.

From a scientific point of view, this food appears to be almost perfect, and we are assured that practical results have borne out the expectations which the analysis and mode of preparation of the food would indicate. Healthy infants have uniformly lived for many months on this food with absolutely no digestive sicknesses, and have been totally free from any indications of scurvy or ricketts.

The bone, teeth, and muscle-forming qualities of the food have been unexcelled, and these infants are the picture of health. In a large number of cases where the food has been given to sick infants, a remarkable improvement has taken place, and in many cases infants unable to assimilate any other food have thrived on Modified Milk Powder (C.M.P.), and have been completely restored to health. The manufacturers declare that this food is the only scientific substitute for mother's milk, and that its uniform quality, cheapness, and the ease with which it is prepared make it invaluable for infant feeding.



We are glad to note the Canadian development of a food of this kind, which seems likely to be of tremendous value in lowering the excessive rate of infant mortality.

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THE CHARLES H. PHILLIPS CHEMICAL COMPANY (14, Henrietta Street, Covent Garden).—As in previous years, this firm confined its exhibit to two of its products, the one being a compound syrup of quinine, the other a fluid magnesia. The former is known as the *Syrup of Phospho-Muriate of Quinine Compound*, its strong point being that in its preparation the muriate instead of the sulphate of quinine is used, and phosphates instead of hypophosphates. Hence, the preparation being acid, there is no risk of the contained strychnine being thrown down, as sometimes occurs in the case of hypophosphite syrups. It is a pleasant bitter tonic, not productive of headache, and very stable. The fluid magnesia of the firm is termed *Milk of Magnesia*, this being the registered title of an odorless, white, palatable fluid with the physical appearance of milk. It is a hydrated oxide of magnesia, each fluid ounce representing, we understand, magnesium hydrate 24 grains. Under the microscope it is seen to be homogeneous, a fact which supports the firm's statement that their *Milk of Magnesia* is not, as are many magnesia preparations, merely a triturated magnesia suspended by mucilaginous or glycerine solutions. It attributes its special value as a neutralizer of free acids to the fact that it is entirely free from carbonates, and therefore does not give rise to discomforting evolutions of carbonic acid gas. It combines readily with tinctures as well as with iodides and other solutions of salts, and is useful as a suspender of fixed and volatile oils. We have had considerable experience of its use in the diarrhoea of children and in gastric irritability, and consider it an excellent form in which to administer magnesia when indicated in such cases. It may be also substituted for lime-water in the modification of cow's milk. Owing to its persistent alkalinity and tastelessness, it forms a good mouth-wash for use at bedtime.

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S. NEWMAYER, M.D., Philadelphia, Pa., states: Among the varied causes of convulsions, none play a more frequent and important part than auto-intoxication. They are more frequent in children, due generally to a possible overfeeding,

improper food, or constipation. The intestinal canal contains a variety of toxins derived from the ingesta, bile and putrid material. There is continuous absorption from the intestines, including the taking up of toxins.

In the acute infections, where convulsions is oftentimes a forerunner, autointoxication from the intestinal tract undoubtedly is of no minor importance. Infections are the result of microbes, and we know these bacteria produce something injurious to the system—they elaborate poisonous ptomaines or toxic substances. Nature tries to rid the body of this poison through its various channels of elimination, one of which is the intestinal canal.

It is here we can aid Nature with our antiseptics. The value of internal intestinal antiseptics, I believe, is greatly overrated. Many of these drugs are soluble and absorbable, and those that are not are so often given in such small doses that, in the long journey from the mouth through the intestinal tract, they have spent most of their value before they have proceeded far.

Not to employ internal antiseptics would be unwise. But I would urge a more liberal use of antiseptic solutions by means of the rectal tube. This enteroclysis has not only its antiseptic value, diminishing the toxicity of the intestinal tract, but oftentimes an antipyretic action. This mode of treatment has not been very popular with the physician because of the unclean work, but I am confident the results well repay one for the labor.

In all cases of convulsions, immaterial of the cause, and in any other condition pointing to autointoxication, I flush the lower bowel with a solution of Glyco-Thymoline, one to two ounces to the quart of water.

Glyco-Thymoline is always kept in my emergency grip.

---

A CONSERVATIVE HOUSE.—Some of the members of the medical profession would open their eyes could they look over the files of the Denver Chemical Mfg. Co., manufacturers of Antiphlogistine, and see the many, many requests for window hangers, store advertising, etc., which they are constantly refusing. This company could get an almost unlimited amount of advertising, good advertising, too, at no expense, except for the printing of the cards or booklets, if they did not have too great a pride in the honorable position which they occupy as purveyors to the medical profession. Perhaps they feel the ethical requirements of their position more keenly on account of the personnel of the company. Half the

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Ext. Nux Vomica..... ¼ gr.

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Arsenical solution..... = 2 mins.  
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members of the board of directors are physicians who have spent each of them many years in active practice, the president of the company being an ex-president of his State Society, and the head of the advertising department is himself a physician, and was for many years the secretary of his County Society.

With such a personnel, it is not surprising that the advertising is not only strictly ethical, but even ultra-conservative in spirit.

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RHEUMATISM DUE TO GRIP.—In speaking of the treatment of articular rheumatism, Hobart A. Hare, M.D., Professor of Therapeutics in the Jefferson Medical College, and Editor of *The Therapeutic Gazette*, says: "Any substance possessing strong antipyretic power must be of value under such circumstances." He further notes that the analgesic power of the coal-tar products "must exert a powerful influence for good." The lowering of the fever, no doubt quiets the system and removes the delirium which accompanies the hyperpyrexia, while freedom from pain saves an immense amount of wear, and places the patient in a better condition for recovery. The researches of Guttman show conclusively that these products possess a direct anti-rheumatic influence, and among those remedies, antikamnia stands pre-eminent as an analgesic and antipyretic. Hare, in the latest edition of his *Practical Therapeutics*, says: "Salol renders the intestinal canal antiseptic." This is much needed in the treatment of rheumatism. In short, the value of salol in rheumatic conditions is so well understood and appreciated that further comment is unnecessary. The statements of Professors Hare and Guttman are so well known and to the point, and have been verified so often, that we are not surprised that the wide-awake manufacturers placed "Antikamnia & Salol Tablets" on the market. Each of these tablets contains two and one-half grains of antikamnia and two and one-half grains of salol. The proper proportion of the ingredients is evidenced by the popularity of the tablets in all rheumatic conditions, and particularly in that condition of muscular soreness which accompanies and follows the grip.

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I am prescribing Resinol Ointment in many cases of skin diseases, also for scalds and burns. Since finding out its usefulness in itching cutaneous troubles, I could not get along without it. Kindly send me more samples of both Soap and Ointment.—S. S. Darill, M.D., Spartanburg, S.C.





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I want to thank you for the sample of Resinol Shaving Stick. I find it first-class. I want to say that it is the only Soap I can use or shall use in the future. I shave every day, and my skin is as soft and velvety as a girl's. My son also uses it, and many of my friends and patients. The Unguent Resinol is all you can claim for it.—L. Dawby, M.D., West New Brighton, S.I., N.Y.

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SURPRISED AND GRATIFIED.—In relating his experience in the treatment of gouty conditions, Dr. Arthur Bailey Francis (Queen's College), Belfast, Ireland, reports the case of J. W., a gentleman in advanced life and of marked gouty diathesis, who came under treatment complaining of severe pains in the lumbar region and extending down one leg to far below the knee. Dr. Francis says: "I found that he had received a chill, and was also suffering from catarrhal bronchitis. I diagnosed lumbago and sciatica, and put in force the orthodox methods of treatment one after the other, but with little benefit to the patient. Insomnia now became a cause of anxiety; bromides had little or no effect, and I was revolving in my mind the safety and advisability of morphia, hypodermically, when it occurred to me to first try the effect of antikamnia and codeine tablets. This I did, ordering one tablet at bed-hour, to be followed in fifteen minutes by a similar dose, and that also by a third at the expiration of half an hour from the administration of the last. On seeing the patient the following morning I was surprised and gratified to find that he had passed a quiet night, slept well, and that the pain in back and legs was greatly modified. I continued the administration of antikamnia and codeine tablets after this, and before the end of a week the patient was quite free from pain, slept well, and was, in fact, convalescent. I should mention that this patient is seventy years of age, but notwithstanding this, I could detect no depressing effect on heart or nervous system consequent on the administration of these tablets. Since treating the above case, I have prescribed antikamnia and codeine tablets for insomnia, lumbago, sciatica, neuralgia in all its forms, including tie-douloureux, hemierania, and that due to dental caries, and always with the most satisfactory results."

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amount of territory without opposition, a practice of from two to three thousand a year could certainly be expected. He will be pleased to pilot any physician who is looking for a location to these places. This is also a good time of the year for physicians who desire to sell their practices to list them with him, as he has a number of bona fide buyers registered.

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DR. L. L. GRAY, of St. John, Mo., reporting the outlines of a case of enuresis-nocturna, treated with sanmetto, says the case was that of a maid thirteen years of age, who had suffered with enuresis from infancy. She was old enough to realize her condition, and keenly felt its effects. She acted as though she thought everyone she met knew her troubles, and consequently she was shy, unsociable, ashamed to be seen in company. Strangers would ask if she was entirely sane.

He gave her a bottle of sanmetto, told her mother to give her all assurance that it would cure her, if properly taken. He says a second four-ounce prescription verified the truth of his statement. It did cure her, and she became a perfectly formed young lady, intelligent and sociable, the downcast countenance gone and life again worth living.

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I have great faith in Resinol Ointment, and for your benefit I will relate one of my experiences with it. Early in the spring, Mr. C——, a young man, called at my office and wished me to treat an alveolar abscess that he had suffered much with, telling me that he had spent considerable time and money with different physicians and dentists trying to heal it. I found an abscess extending along the buccal surface from the second bicuspid almost to the third molar. I tried various remedies and operations with almost no success; finally I saturated a piece of absorbent cotton, made in the form of a rope, with Resinol Ointment, and inserted it into the abscess the whole length, and told him to call the next day, when I removed it and applied a fresh one. I continued this, with no other treatment, and in less than a month the abscess was entirely healed, and has shown no symptoms of returning.—G. G. Hollister, D.D.S., Dunkirk, N.Y.



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## Original Articles

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### THE OLD AND THE NEW GYNECOLOGY.\*

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By HENRY C. COE, OF NEW YORK.

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When I received the cordial invitation from your Secretary to address you for a few minutes on a theme which may seem to be somewhat hackneyed, I hesitated long before accepting the honor; first, because of my aversion to public speaking, and secondly, because I could not seem to hit upon a topic of general interest. Finally, I concluded that, since I had been engaged in special work for just twenty-five years, under conditions that favored a thorough acquaintance with the many changes which have occurred in obstetrics and gynecology during that period, you would pardon me if I ventured to gather up the tangled threads of my personal experience and give them to you for what they may be worth. Such a paper must necessarily be of a rambling character, because the field is too vast to cover in one, or in several, evenings.

I cannot help contrasting the present relations of my fellow-countrymen with our brothers "across the border" with those which existed a quarter of a century ago. Then we were strangers, distant and reserved; now we are indeed colleagues and *friends*. Our hearts are still filled with the same grief which saddens yours. We wept with you over the grave of the "Peacemaker," that kind and gentle spirit, a true democrat, but "every inch a king," who did so much to remove ancient prejudices and to make us all feel

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\*Read before the Canadian Medical Association, June 3, 1910.

that we have one common mother country. Thank God, we are no longer strangers. There is a broad, well-beaten trail between your fair land and ours. You may build your prospective fleet of battleships, but the friendly invasions cannot be stayed.

In medicine, especially, we have a common interest, nor do we need to quote the well-known saying of Voltaire: "Il n'y a pour quiconque pense ni Français, ni Anglais; celui qui nous instruit est notre compatriote."

I am especially desirous of emphasizing the progress of the obstetric and gynecic arts because, at the present day, one hears on every side that gynecology as a specialty is on the wane; that it has outlived its usefulness and will soon be merged in general surgery. It would hardly be necessary to deny this statement before an audience of medical teachers, for never before has greater attention been paid to these allied subjects in our colleges. Witness the recent report of the Committee on Obstetrics and Gynecology of the American Medical Association. But it is undeniable that such an impression does prevail among the profession. Before I sit down I hope to convince you that we have just begun to touch upon the mysteries of the pelvis, and that, so far from being moribund, gynecology has a future even more glorious than its past. If I were in the least disposed to be egotistical, such a feeling would always be dispelled when I call before my mental vision a quiet library in my native city, to me a shrine, where sits day after day in serene, beautiful old age, my (yes, *our*) dear friend and teacher, Dr. Thomas Addis Emmet, long past fourscore, with eye undimmed and mind as clear and vigorous as it was twenty-five years ago. Always studying and writing, always cheerful and optimistic, though long since retired from active practice, he is still a keen observer of current events. He is the old and the new, the spirit of eternal youth. "My work is done," he said to me not long ago, "and I am waiting for the call." As our poet-naturalist has beautifully expressed it:

"Serene I fold my hands and wait, . . . . .  
For lo! my own shall come to me."

When we think of *his* half-century of work, and work that will endure long after our little ephemeral tasks are finished and forgotten, we of the younger generation must feel humble indeed.

"I know so little," said that great pioneer of abdominal surgery, Keith, when asked why he had made such infrequent

contributions to the literature. In such a spirit let us review the little that we have done in gynecology, and think of what remains to be accomplished.

In his scholarly presidential address before the American Gynecological Society in 1896, Dr. William M. Polk presents an admirable summary of the advances in obstetrics and gynecology since the birth of the Society, twenty-one years before. Ten years more have passed, and we can chronicle still greater changes, not only in the line of improved surgical technic, but, what is to me far more gratifying than mere operative statistics, the scientific application to diagnosis and treatment of the facts furnished by the patient workers in the laboratory. It is unnecessary to remind you to what degree bacteriology has aided us during the last decade, or how the misnamed "luck" (I hate that word) of the past has become the calm certainty of to-day. Gynecology and Obstetrics, especially the former, have suffered most at the hands of their over-enthusiastic followers. In no branch of medicine have there been so many fads and fancies, so much of what old Virchow humorously denominated "*Gehirn-schweiss; keine echte Secretion.*" It seems almost incredible to us, who have passed through the storm and stress period, that such wild and varied theories could have been championed by such distinguished leaders of medical thought. Rivers of ink (and blood) flowed in the days when that brilliant meteor of science, Lawson Tait, flashed across the sky. His pen was almost as mighty as his sword, and rash were those who entered into a controversy with him. The mighty impetus which he gave to abdominal surgery has reached its highest level in that little town in Minnesota, whither we all wend our ways to learn real lessons, not only in surgery, but in that broad humanity which makes one feel that the spirit of the Great Physician still broods over this commercial age. From Birmingham to Rochester, from Tait to the Mayos, is a far cry; but let us not forget what we owe to the brilliant, though erratic, surgeon who at one time rightly boasted that he "tapped the clientèle of the world."

I shall never forget, on my return from foreign study in 1884, whither I had gone fresh from the school of Sims and Emmet and Thomas, returning with a mixture of advanced German and conservative English views, to find that Tait had thrown the surgical world into a ferment by forcing upon its attention not new theories, but convincing *facts*. Thomas, quick to assimilate recent ideas and prompt to work them out practically, had already begun to diagnose and operate for tubal disease. I recall the fact that,

long before this time, as his interne in the Woman's Hospital, I had assisted him in the first vaginal ovariectomy and ventrofixation, operations which were original with him, as he knew little of German surgery and less of pathology. It was only a step to the diagnosis and operative treatment of ectopic gestation, hitherto regarded as a condition to be treated by electricity before rupture and "expectantly" afterward. Then came the *furor operandi*, which swept over the United States and Canada, until he who could not report a series of laparotomies (with a mortality of 25 per cent.!) could not lay claim to be even a local gynecologist. Strangely enough, at this very time puerperal sepsis was still regarded as a "visitation of Providence," and Thomas himself was advocating intra-uterine douches at intervals of two or three hours (!)—also with a high mortality—and we knew practically nothing about the prevention of the dread scourge of the lying-in room. Conservatism was most unpopular in those days, and thousands of prolapsed, slightly cystic ovaries were sacrificed, which to-day would not be touched, with dismal psychical sequelæ, even when the patient recovered from the operation. Pathology and exact clinical diagnosis were lost sight of in the face of the prevailing dictum: "When in doubt, open the belly and find out."

Having early learned the truth of the old saying, "*In mediis tutissimus ibis*," I felt that a reaction was bound to come and that surgeons would realize that "recovery" was not synonymous with "cure," and took my stand firmly against the unreasoning and indiscriminate spaying of women in the absence of proper indications. I have lived to see the pendulum swing so far in the direction of ultra-conservatism that I have written several papers protesting against attempts to save portions of organs that were hopelessly diseased. With the visit of each foreign surgeon, we Americans (who excel even the French in the adoption of passing fads) have in turn extirpated the uterus in every case of adnexal disease. We have gone wild over the crude clamp-operation of Jacobs and Segond, have tried to improve on the normal ovary, à la Pozzi, by ignipuncture and partial resection, and have even abused such a reasonable operation as myomectomy by exsecting a few visible fibroids and leaving scores of smaller nodules to give future trouble. We have fixed every palpable kidney, removed the appendix on the single indication of local pain, shortened the round ligaments in cases of complete procedentia—in fact, have jumped from one extreme to another. I do not spare my countrymen, "*quorum pars fui*."



It is refreshing to note that the day of surgical fads has given place to psychological isms, in which, at any rate, less physical harm is done. I confess to an excusable sense of pride when I think what gynecology has done for abdominal surgery, though I admit frankly that the general surgeons have just cause for complaint because of the rapid extension of pelvic surgery to the abdomen. My conscience does not trouble me, for while I hold that every gynecologist should be prepared to deal intelligently with any complication that he may encounter in the course of an ovariectomy or hysterectomy, he has no right to deliberately perform an operation upon the gastro-intestinal tract which he has not done more than a dozen times. Gynecologists will learn in time to respect the old saying of Æsop, "Let the cobbler stick to his last."

On the other hand, our friends, the general surgeons, are not always at home in the pelvis. This is delicate ground, but "I speak that I do know." How often have I seen successful appendectomies fail to cure the patient because the surgeon was content to remove the offending organ alone, and did not discover accompanying disease of the right tube and ovary! So firmly has this been impressed on my mind that, even in an acute case, I usually explore the pelvis before searching for the appendix.

We have quite enough to do to perfect the arts of obstetrics and gynecology, between which there can be no legitimate divorce. If the medicine of the future is to justify the dictum that "prevention is better than cure," even though our pockets suffer at the expense of increased scientific knowledge, every practitioner who attends a case of labor must possess what Tyndall called the scientific imagination. "Fifty per cent. of my income is furnished by the obstetrician," said Dr. Emmet to me at the outset of my professional career, and we still count on the active co-operation of the accoucheur in that respect. It ought not to be so. Watch your obstetric cases throughout the entire period of gestation; know before labor begins when to expect dystocia. I abhor "meddlesome midwifery" as much as did the wise old English masters of obstetrics, and have little sympathy with the advanced (?) school, who would prepare every lying-in room as if for a laparotomy, and carry to an ordinary case of labor all the paraphernalia necessary for a Caesarian section. Nature is a tricky jade, but let us give her a chance. I doubt not that in large lying-in hospitals the latter operation and pubiotomy have become unduly popular, to the exclusion of the premature induction of labor and skilful manual and instrumental delivery. Granted that the neurotic women of this generation are

radically different from their sturdy mothers and grandmothers, so much the greater reason that we should learn to handle them at least as skilfully as our teachers. When I remember how Isaac E. Taylor could coax the fetal head carefully and patiently through a contracted pelvis with his old-fashioned straight forceps, I do not feel very proud of my fetal mortality with the improved axis-traction. After all, we are not so much wiser than our predecessors, and do well to heed the injunction, "Remove not the ancient landmarks which the fathers have set up." But in one respect at least we have the advantage of our forbears. We can insure perfect asepsis, and can anticipate the work of the gynecologist by careful repair of lesions of the soft parts immediately after delivery. Let us no longer be content with saving the lives of the mother and child, even after the most difficult delivery. Let our ambition be to leave the mother in just as good condition as we found her. I shall not repeat, what I have so often written, that it is not enough to simply suture raw surfaces, but we must repair the deeper, invisible tears of the pelvic floor which are the direct cause of future displacements. Union of the lacerated sphincter ani (and he who has never had this accident has not had many difficult cases) must be deliberately and aseptically effected, with the confident expectation of primary union.

Let us not be content to dismiss an obstetric case two or three weeks after delivery. Examine the patient four or six weeks later and you will be surprised to find how often the uterus is retroverted, even after a perfectly normal confinement. Many of these displacements right themselves with simple postural treatment, and the majority are cured by the judicious use of a pessary. In fact, the late Dr. Paul F. Mundé, a strong, honest man, admitted as the result of his vast experience that these are practically the only cases which are really "cured" by this useful instrument (about 5 per cent. of all cases of simple retroversion). Why not try one, and thus save the patient a subsequent Alexander's operation or ventro-suspension?

It is affirmed that sepsis should practically be an unknown factor in modern obstetrics. This may be true in well-equipped hospitals, where the mortality from this cause has been reduced to less than one per cent., but it is not the case in the homes of the poor, at least in New York City, where so many women are attended by midwives. The statistics of the Board of Health, as well as the experience of those who are connected with our public hospitals, still shows a most reprehensible proportion of septic

cases, even after normal labor. In fact, a prominent obstetrician recently stated in my hearing that there had been only a slight lowering of the death-rate from puerperal septicemia (excluding criminal abortion) during the past decade. This is a significant commentary on our boasted modern asepsis, and may well furnish food for serious thought. In my own experience, hardly a week passes in which I am not called upon to operate (often in desperate cases) for the relief of septic conditions which were clearly avoidable. We may well turn from our brilliant statistics of laparotomy, and ask if there is not more useful work to do in the line of prophylaxis.

The concentration of our minds upon abdominal operations inevitably diverted our attention from the less spectacular, but equally useful, plastic surgery. I distinctly remember when it was considered as rash and injudicious to repair a lacerated cervix and perineum at the same sitting; in fact, I assisted the late Dr. James B. Hunter at his first "combined" operation. Later, plastic surgery again came to the front, and numerous were the new methods of restoring the torn perineum. Flap-operations in perineorrhaphy and the closure of vesico-vaginal fistula, popularized by Tait, had their day, and were found wanting. Permanent results, not mere rapidity of execution, form the true test. Emmet was the first to call attention to the true pathology of so-called laceration of the perineum—that it is not simply a visible tear of the soft parts, but actual separation of the muscular fibres and fascia of the pelvic floor. Every subsequent operation of permanent value has been based on this sound anatomical principle. Any man who watches the arrest of the head at the lower third of the parturient canal must admit this, even if it had not been confirmed by careful dissections and studies of frozen sections. Earlier and more skilful application of the forceps has done much to prevent this lesion, while, as regards vesico-vaginal fistula—due to neglected labor—this has become literally a *rara avis* since the days when I was an interne in the Woman's Hospital, where Sims won his spurs for his successful treatment of this hitherto common and hopeless condition.

The classical cervix operation, once so common (and so abused as to apparently justify the sneer of foreign surgeons, that "one set of American gynecologists incised the cervix and another sewed it up") has given place to Schroeder's amputation. We hear little nowadays about subinvolution and "reflex neuroses" due to laceration. Dr Emmet himself admits that amputation is now the most useful operation to prevent the subsequent develop-

ment of carcinoma, I share in the enthusiasm of your distinguished Fellow, Dr. A. Laphorn Smith, that the general recognition of this fact has led to a notable diminution in the number of cases of epithelioma of the portio vaginalis, though I cannot agree entirely with him in view of the fact that the insidious disease, adenocarcinoma of the cervical canal, is still as prevalent as ever, and is unfortunately seldom recognized until the parametria have been invaded.

When I was a student and young practitioner the most experienced diagnostician had no eye, or sentient finger, except for coarse lesions. We rested long under the magic spell of Sims, the burden of whose song (as has been that of the French school) was the cure of sterility by operations on the uterus. His influence is still felt, and we continue to dilate and curette, regardless of the old dictum of Gross, that in a considerable proportion of our cases the husband, not the wife, is at fault. Various patent stems and sure cures have had their day. "*Donnez moi des chiffres, et je vous prouverai tout*" must be written on most tables of statistics. If we only had sufficient patience to wait for the results of collective investigation, instead of rushing into print with our own scanty experiences! We are so prone to jump at conclusions based on imperfect and ill-digested material!

Sterility is, and ever will be, the burning question in gynecology. I cannot pretend, in this short hour, to discuss it, and would only call attention to the fact that certain difficult problems, psychical as well as physical, are still unsolved. My own observations in the post-mortem room and at the operating-table have convinced me that in closure of the abdominal ostia of the tubes (whether due to simple or to mild specific inflammation) lies the solution of many of these cases which baffle the clinician because he can discover no palpable lesion, or history of former trouble.

A word in this connection as to the results of so-called conservative surgery of the adnexa for the cure of sterility. I never remove both ovaries and tubes in women of the child-bearing age unless they are hopelessly diseased, not because I have had such brilliant results as used to be reported, but because I believe that the retention of the function of ovulation and menstruation preserves the patient from much future misery. Under certain limited indications, I am ready to open the abdomen (with the full understanding on the part of the patient that the operation is more or less empirical) where I suspect occlusion of the tubes, and have been gratified to find that my inferences have sometimes been justified; but I am not yet prepared to advocate this as a regular procedure in doubtful cases.



Dysmenorrhea, its etiology and cure—how much do we really know about this common symptom, a favorite question with the examiner, which is answered glibly enough by the student? Why do a familiar type of neurotic young women suffer atrociously every month when, with all our experience, we can find no satisfactory cause for it? We may dilate, curette, remove cystic ovaries, or a “suspicious” appendix, fix a mobile kidney, suspend a retroverted uterus, but the pain still persists. Here is an essential difference between the old and new gynecology. We are just beginning to realize the importance of the psychical element in these cases, that the border-line between normal and abnormal menstruation is ill-defined, and that the rythmical, painless, uterine contractions which have been proved to exist during the menstrual flow in every healthy woman may easily become exaggerated under the influence of nervous disturbances, even though no lesions can be found, either gross or microscopical. No man can boast that he thoroughly understands a woman. Dr. Oliver Wendell Holmes was right when he described the successful doctor of the old school as one who studied the currents and counter-currents of the soul, as well as of the body. And then, too, the interesting question of intestinal toxæmia in its relation to pelvic disorders—how little attention the gynecologist, as well as the surgeon, has paid to this important subject! I sometimes feel as if, in the ancient phrase, “*Propter ovarium mulier est*,” we should substitute “*intestinum*” for “*ovarium*.”

We have only begun to touch upon the more obscure causes of amenorrhea, especially in young women who increase rapidly in adipose. The question of the internal secretion of the ovaries, and its bearing on metabolism, has always been a fascinating one to me. There is something deeper than mere anatomical changes in the uterus and ovaries, for under proper treatment the long-absent function of menstruation may return. Yet every day men dilate and curette to relieve this condition—true homeopathic treatment.

Curettement—its use and abuse—would fill a volume. Too often we resort to it because we don't know what else to do—a lame confession enough! Heed the warning of the elder Flint, in all therapeutics to remember first the injunction, “*Non nocere*.”

I have found in the trite subject of uterine displacements a great deal that still remains to be explained. Surgery has accomplished much for the relief of this condition, especially the ingenious Alexander-Adams operation, though its indications are now recognized as so limited that I question if there are many of us with sufficient experience to attempt it with the same confidence

as of yore. The most ardent advocate of extensive shortening of the round ligaments now numbers his operations by the scores instead of by the hundreds.

I am old-fashioned enough to believe in pessaries, because, in proper cases, and when we take the trouble to adjust them properly, they are valuable makeshifts. Most men nowadays do not bother to select their cases, and become easily discouraged if immediate relief is not obtained. Pessaries used to be legion, and a weird lot they were, almost as great curiosities to the present generation as the instruments unearthed at Pompeii. The prevailing idea that every retroverted uterus causes symptoms has long been disproved. You all have patients who would not know that their uteri were displaced if you did not tell them. If you examine women as a routine practice, four or six weeks after delivery, you will be surprised to find how often the heavy uterus sags backward, to resume its normal position under simple postural treatment after involution is complete.

I do not, of course, refer to those cases of adherent retro-displacement in which, after palliative treatment has proved unsuccessful, ventro-suspension or internal shortening is clearly indicated. While much time was lost, and patients were exposed to unnecessary suffering during the long course of tamponade to which they were formerly subjected, it must be admitted that shortening of the round ligaments—both extra- and intra-peritoneal—is often followed by an anatomical rather than by a symptomatic cure. What does a woman care how “successful” an operation is if she *feels* no better?

Uterine hemorrhage is another familiar theme. This symptom was once so easily explained. There was always a local cause to be found and removed by the surgeon, while most practitioners were content to try ergot—the *bête noir* of the scientific mind. What teacher of obstetrics and gynecology sees a case of hemorrhage in consultation, or reads an examination-book, without hearing a wearisome reference to this ancient remedy? We shudder at the remembrance of those barbarous subcutaneous injections employed for the “cure” of uterine fibroids, and have all had experience with the supposed “hour-glass contraction” of the parturient uterus, due to its baleful action, when given before the placenta is expelled. And as for its blind administration in cases of unrecognized uterine cancer—I do not care to dwell upon them. Ergot has done almost as much to cover up our mistakes in diagnosis as the undertaker—only nobody knows it. A patient with fibroids said to me only two days ago: “Why, doctor, I have

been taking big doses of ergot right along, and I flow worse than ever." Of course she did. The irregular, spasmodic contractions of the arterioles were naturally followed by increased vaso-dilation. I do not propose to touch upon the elementary points known to all, only to emphasize certain facts overlooked by our predecessors, but now generally recognized, that metrorrhagia is a most important symptom, which at once leads us to infer the possible existence of incomplete abortion, ectopic or carcinoma, and that menorrhagia means increased pelvic congestion due to the presence of either uterine or adnexal disease—always the possibility of climacteric influences. In brief, when there is bleeding, explore the uterus inside and out, and don't waste time with medication, hot astringent douches or tampons.

But these cases are not always as simple as they appear. It is a common experience with every gynecologist to encounter cases in which repeated curetting, with or without local cauterization, even atmocausis, so vaunted by the Germans (I do not speak of that fanciful procedure, ligation of the uterine arteries), all fail to arrest the flow, and it becomes necessary to extirpate the uterus in order to save the patient's life. The most careful microscopical study of serial sections of the organ fails to explain the phenomenon. We may talk of "hemorrhagic endometritis," "endarteritis" and other vague pathological conditions, but we are often obliged to acknowledge our utter ignorance of the *causa ultima*.

To properly review the progress that has been made in the treatment of uterine neoplasms, both benign and malignant, would require a separate monograph, but what we really know about the etiology and pathology of fibro-myoma and carcinoma could be condensed within a page. When I recall the frightful mortality of hysterectomy for fibroids with the extra-peritoneal clamp, and the boldness of those surgeons who first ventured to drop the stump back into the cavity, knowing the imminent risks of hemorrhage and sepsis, and think of our present technic, I feel justly proud of gynecology. But let us not forget that it was a general surgeon (Dr. Lewis A. Stimson, of New York) who first paved the way to successful supravaginal amputation by advocating previous ligation of the uterine arteries.

What more curious historical fact in medicine than the widespread enthusiasm over Apostoli's method of intrauterine galvanization, which led Keith to abandon hysterectomy for fibroids at the height of his success? How much was claimed for it, and how little was really accomplished!

With the remarkable diminution of the death-rate under the influence of modern asepsis came that mischievous tendency to

remove every fibroid of any size, merely because it was a neoplasm. I have thrown what little influence I may possess strongly against operative intervention in the case of small tumors without clear indications, and I am happy to see that a reaction is already setting in against indiscriminate resort to the unnecessary mutilation of poor women, who have troubles enough of their own without our suggesting new ones that had not occurred to them.

As to the true etiology of fibroids, we are still at sea. Personally, I believe that it will eventually be found that they are mainly of inflammatory or irritative origin (endarteritis?), but we have not yet sufficient evidence upon which to generalize.

I hesitate to approach the burning question of cancer of the uterus, because it is impossible to do justice to it in a few minutes. Perhaps I ought not to consider it at all, being an avowed pessimist with regard to the surgery of malignant disease of the viscera, and consequently a prejudiced witness. Statistics at the best are so imperfect and misleading. I never use the word "cure" in advising a radical operation for cancer of the uterus, nor do I believe that we can assign any limit of time after which we can confidently affirm that the dread disease may not recur. I have been bitterly disappointed after ten, yes, fifteen, years of waiting and hoping. The cardinal rule, to operate early and thoroughly, can only be followed when a case is absolutely favorable, and how few are such, in comparison with the vast army of the inoperable! It is a curious fact that while the general profession has learned to recognize promptly acute appendicitis, and ruptured ectopic, thereby saving many lives, in spite of all the teaching and the flood of literature on the subject, the initial symptoms of cancer of the uterus are generally overlooked. It is the slight irregular bleeding which should at once arrest our attention, not the pain, foul discharge and cachexia, which in themselves usually denote that the disease has progressed beyond the sphere of surgery. We cannot expect our results to bear any comparison with those of the Germans until the general practitioner has learned (here, as he has abroad) to diagnose cancer in the initial stage. As to the choice of methods of operating, unquestionably the abdominal route appeals to the surgeon as the more thorough and scientific, though the mortality is still high, and the ultimate results are not what was anticipated. But in my early days less than ten per cent. recovered after the imperfect hysterectomy, then called "Freund's operation," while vaginal extirpation carried a heavy death-rate and early recurrence. We have much to encourage us, but let us not forget, when we speak of "radical" operations, that the con-



ditions in the pelvis and in the mammary region and axilla are so essentially different that no comparison is justifiable. As a matter of fact, no operator can confidently affirm that he has removed *all* the outlying foci of disease, even in the axilla, let alone in the pelvis.

Since such a large proportion of our cases of uterine cancer are susceptible only of palliative treatment, it is gratifying to note the greater attention now paid to the relief of inoperable cases, as compared with former days, when they were regarded as a sort of *noli me tangere*. It is one of the sad proofs of how soon really beneficent work is forgotten when we try to recall to a younger generation the remarkable results obtained by the late Dr. John Byrne, of Brooklyn, with the galvano-cautery. His papers, buried in the Transactions of the American Gynecological Society, are almost forgotten, except by those who knew that fine type of the old Irish gentleman, whose work was absolutely reliable, and was founded on what we now know as a sound pathological basis. I can only refer you to his original papers, and testify to the absolute accuracy of his statements.

The etiology and treatment of cancer is a subject of absorbing interest. Not more earnestly have the telescopes of the astronomical world been focussed on our rare celestial visitor than are the minds of patient observers in research-laboratories concentrated upon the problem of cancer—one so elusive, yet at times apparently almost within our grasp. I firmly believe that its cause and cure will be discovered, though hardly in this generation, and that serum-therapy, not surgery, will solve the problem. Now "we see only in part," and our brilliant operations must remain at the best largely empirical. We must learn to look beyond the operating-room, or our vision will become dim and contracted.

Much has been written of late about the utility of the radical removal of thrombosed veins in puerperal septicemia. I am ready to go as far as any man, but I confess to the same feeling of limitation in these conditions that exists in the case of cancer—a lack of definite knowledge as to the extent of the disease. Recent experiments at Bellevue Hospital in a series of desperate cases of general septic infection (confirmed by careful blood examinations) have inclined me to again give a fair trial to intra-venous injections of our new antistreptococcus serum, without any other treatment, since it has seemed in twenty per cent. of the cases that we were able to arrest and eventually eliminate infection admitted to be beyond the reach of surgery.

I have purposely avoided any discussion of the much-vexed question of the abdominal versus the pelvic route, since I believe

that each has its advantages. I have seen too many disasters follow a blind adherence to vaginal hysterectomy in complicated cases to desire to practise that method except in certain cases of sepsis and malignant disease. Now that the fierce controversies have ceased, it must be apparent to the candid observer that surgeons in general prefer to work with the aid of the eye, as well as the fingers, with the patient in Trendelenburg's posture, and the intestines carefully walled off with gauze. The question of the propriety of removing the appendix in every abdominal operation as a routine measure has always found favor with me (of course, under proper conditions), and I have had no untoward result in upwards of five hundred cases.

The questions of flushing the pelvic or abdominal cavity and drainage have been the battleground of abdominal surgeons during the past twenty-five years. Thanks to our present knowledge of phagocytosis and the wonderful absorptive power of the healthy peritoneum, we have learned that irrigation (except perhaps in desperate cases of diffuse septic peritonitis, or visceral wounds, with the escape of stomach or intestinal contents) is likely to do more harm than good, and we have reversed the former dictum: "When in doubt, drain." Our old teachers would turn in their graves to see the apparent recklessness with which we simply mop out pus and close the wound without drainage. It seems strange that the natural method of drainage per vaginam was not adopted earlier, though I know personally that Marion Sims tried it when I was a student. When he advocated laparotomy for gunshot wounds at the time of President Garfield's assassination he was regarded as a dreamer, but I remember the night in the old Chambers Street Hospital when William T. Bull—then a young and rising surgeon—had the courage to carry out this suggestion with brilliant success, and, like Byron, "awoke the next morning to find himself famous." Our modern methods are, after all, not new discoveries, but simply accretions of knowledge.

We can cast no reliable horoscope of the obstetrics and gynecology of the future which does not take into consideration the problem of medical education. When we recall the pompous lecturers of the old days, the dramatic surgical clinics, with their "gallery-plays" (and "cleaning up" behind the scenes), we can only compare them with the spectacular warfare of the Napoleonic era as contrasted with the cold, business-like, long-range annihilation of thousands which will mark future wars.

The substitution of recitations and demonstrations for formal didactic lectures, personal instruction of small sections of stu-

dents in the wards and operating rooms instead of in public clinics, where only a few can actually see and hear the teacher—that is the plan which is going to make the trained medical man of the future. But this is only a small part of our work, to fit the young practitioner to hold his own in the fierce competition of modern life. Let us try to inspire him with a love of knowledge for its own sake, not that he may merely coin it into filthy lucre. Let us fire him with an ambition to become an original investigator. Never before has the world had greater need of *men*, of men who set the honors which await scientific achievements above money. This is the age of reason in religion and in medicine. “He did the *deed*, why need he talk?” is the virile creed of your foremost apostle of English manhood. It is a hopeful sign in this outwardly flippant, pessimistic age, that beneath it all runs a deep current of serious, earnest thought, a sense of personal responsibility. After all, is not this the sum and substance of what we call education? As youth and its fair dreams recede, the realities appeal to us more. To those whose attentive ears can catch faint echoes of the waves of that shoreless sea on which we must soon embark, the opinions of men count less and less.

“What I gave, I have;  
What I kept, I lost.”

is a quaint old epitaph on the tomb of an English knight whose name is long forgotten. Let us give ourselves more earnestly to the search after truth, and, having caught glimpses of that glorious vision, let us show it to those who succeed us, and to whom it will be revealed more clearly.

What of the gynecology of the future? I predict that the surgical side will become less prominent, that greater attention will be paid to accurate diagnosis and medical treatment. Not that operative technic has yet become crystallized into a permanent form as some believe. There is still room for many improvements. The gynecologist will recognize the propriety of restricting his work more closely to his legitimate field, and will not aspire to absorb the whole of visceral surgery, because no man has the right to perform at the expense of his patient an operation which he can not do well. And by the same token, the half-fledged specialist will be succeeded by the trained mind and hand of the mature man, who has devoted himself to one branch only, after having served a long, severe apprenticeship in general medicine and surgery. Prophylaxis will be the

key-note of future medicine, and the general practitioner will cease to be only the purveyor for the specialist. Doubtless further study of the functions of the ductless glands will throw new light on the physiology and pathology of the organs peculiar to women, and advance organo-therapy beyond the empirical stage. All the various isms are bound to result in some permanent good, as they have in the past. When we understand woman's complex nature better we shall be able to treat more intelligently her protean ailments of mind and body. Gynecology will cease to be regarded as an isolated specialty, but will be an integral part of the whole field of physical and psychical research.

I believe that some of us will live to see the realization of what the laity regard as a chimera, state control of marriage, so that it will no longer be said that we exercise less forethought in the breeding and upbringing of human bodies and immortal souls than we do in the care of our stock farms. This is not a visionary scheme, but it is being worked out even now. Darwin's theory is just as true as it ever was. There *must* be a survival of the fittest, and it is for us to make them fit.

If there is one thought above all others that tends to lower our conceit when we think that we have accomplished something of permanent value, it is the sure knowledge that it must be approved by the judgment of future generations, long after our ephemeral work has been merged in the Everlasting Whole. I know no more pathetic words than those written at the end of his autobiography by that mighty thinker, Herbert Spencer, who, looking back over a life in which he had deliberately sacrificed everything to pure science, asks: "What if there exist no comprehension anywhere?" We remember our own "great cloud of witnesses," the men whom we knew and revered so many years ago. Alas! to the younger generation they are mere names. "There were giants in those days," but with what incredulity do our students hear us speak of the pre-aseptic times, when (as Sir Astley Cooper said) a surgeon needed to have "the heart of a lion." As we compare their limited advantages with ours, their crude pathology, and the uncertainty attending every operation, we question if we would have dared what they dared, and would have accomplished what they did.

Twenty-five years hence our methods will undoubtedly have been long outgrown, our theories forgotten, our conclusions disproved. Be it so. Let us be content to add our little increment of knowledge and experience to the universal sum, toiling like the unconscious polyp in the ocean-depths, until upon countless out-



worn shells a fair isle "lifts its fronded palms in air." It matters little what is our faith or creed, if we have learned the lesson of *service*, or when it is all over.

"Rest after toil, port after stormy seas,  
Death after life, doth greatly please."

Friends and brothers, what better epitaph can we desire than the simple, manly leave-taking of your beloved King: "I have done my bit"?

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### A CASE OF RENAL CALCULUS WITH NEPHRECTOMY.\*

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BY W. WARNER JONES, F.R.C.S., TORONTO.

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*Mr. Chairman and Gentlemen:*

My reason for reading this paper before you was that I thought it might serve to bring up some points for discussion relative to the diagnosis and treatment of renal calculus. In the majority of cases the diagnosis of renal calculus is fairly easy. In a suspected case with a history of pain in the loin and renal colic the patient is sent to be X-rayed, and the diagnosis is usually confirmed. In the vast majority of cases the X-ray plate or photo will show the stone—will tell its probable character and give its relative position in the kidney. But this is not always the case. Some calculi offer less resistance to the rays than other calculi—and the shadow is correspondingly faint. It goes without saying that the more expert the radiographer the more accurate will be the radiogram.

But, notwithstanding the greatest care, an expert will occasionally fail to reveal the stone, and one has several times seen an operation performed and a stone removed when the radiogram failed to show it. However, an occasional exception only proves the rule that "it is fairly safe to rely on the radiogram."

But X-rays are not everywhere available, and the physical signs must be carefully considered. The cardinal symptoms of pain in the loin and renal colic do not always mean stone—for sometimes extension of tuberculous disease to the ureter from a tuberculous kidney—where the wall of the ureter is thickened and its lumen narrowed—will give rise to renal colic. Here it is due to masses of

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\*Read before Canadian Medical Association, June 3, 1910.

debris—caseous material or blood clot—being obstructed by the narrowed lumen.

And, of course, one must remember that phosphatic stone is sometimes deposited in cases of tuberculous kidney. Here the examination of the urine for tubercle bacilli and the use of the cystoscope will help to clear the difficulty.

Several other conditions give rise to symptoms of renal stone and may cause difficulty in diagnosis. Neuralgia of the kidney is often present when the organ is movable, and one must remember that in movable kidney it is possible to get torsion of the pedicle, which will likely give rise to both pain and haematuria. Moreover, the fact that a kidney is movable or misplaced does not exclude it from either disease or calculus. Intermittent hydronephrosis and appendicular colic may both be mistaken for renal colic. New growth in the kidney is usually distinguished by the fact that the haematuria is not only very profuse but is apparently causeless and not improved by rest.

Paroxysmal pain of unknown origin may closely simulate the pain of renal stone, and the kidney has frequently been explored for this condition and nothing found. Renal embolism from heart disease and thrombosis of the renal artery occasionally but very rarely occur and cause difficulty in diagnosis.

The most valuable aid to diagnosis is the X-rays.

Having made the diagnosis of renal stone, two courses are open to the surgeon:

1. Extraction of the stone, or nephro lithotomy, and occasionally secondary nephrectomy may have to be done after nephro lithotomy.
2. Removal of the K. with the stone or nephrectomy.

The operation should not be delayed in the hope that the stone may be passed or dissolved by drugs.

Before proceeding to operate in a case of renal calculus, it is advisable to know the condition of the other kidney. This is important, because it occasionally happens that the kidney is found to be so badly diseased that nephrectomy is obviously indicated, and if the condition of the other kidney is known to be satisfactory one would proceed to perform primary nephrectomy and thus avoid the difficulties and dangers of a secondary nephrectomy. To investigate the condition of the other kidney, either the segregator or urethral catheterization may be used; of the two I think the urethral catheter is the more accurate.

Should the condition of the other kidney be unsatisfactory, it would not contraindicate the performance of nephro lithotomy, but rather would it urge one to advise immediate removal of the stone

so as to minimize the damage to the kidney containing the calculus. At the same time it would put one on one's guard not to do more than was absolutely necessary.

Occasionally one may meet with a case in which it is impossible to use the cystoscope because of stricture or abnormality of the urethra; then the patient must take his chance, and if the kidney is found to be so badly disorganized that nephrectomy is necessary the probability is that the other kidney is working all right or the patient would not be living.

I shall now proceed as briefly as possible to give a short account of a case.

Patient, a male, age 37. Had a perineal fistula six years ago. A year ago was operated on for perineal fistula, due to periurethral abscess. Never had any symptoms of kidney trouble until last Christmas, when he had pain in the loin, accompanied with formation of a swelling, evidently a perinephritic abscess. This was opened in two or three days, and at the same time nephrotomy was performed, and the pelvis of the kidney and ureter were explored and no stone was found. The kidney was found to be badly damaged and a drainage tube was inserted. The patient improved. Four months later Dr. Harvey Todd X-rayed the patient and found that the kidney contained numerous calculi embedded in its substance, and he was sent into the General Hospital under my care.

I cystoscoped him, and with the examination cystoscope saw that the right ureter was discharging pus freely and that the left was pumping clear urine. The patient had a stricture and several false passages, and I was unable to use the catheter cystoscope because of the stricture. There was a large tumor in the loin and a fistula from the previous operation.

Examination of the urine (24 hour specimen) gave 1.5% urea. No tubercle bacilli present. The left kidney was X-rayed also and found to be apparently normal.

*Operation.*—The lumbo-ilio-inguinal incision was used, and with the greatest difficulty, because of perinephritic inflammation, the kidney was freed. But the pedicle was greatly shrunk and it could not be delivered onto the loin.

Exploration of the kidney through a wound along the convex border revealed numerous stones embedded in the kidney substance and the kidney so badly damaged that nephrectomy must be done.

The ureter was isolated, ligatured and divided. The pedicle was transfixd and ligatured in situ with No. 4 silk and the kidney cut away.

A wound in the peritoneum was closed, and after placing a large drainage tube in the loin the wound was closed with interrupted silkworm gut sutures. The patient made an uninterrupted recovery.

One would draw attention to the total destruction of the kidney without symptoms until the development of perinephritic abscess.

Pathological examination after removal showed that the kidney had been almost entirely converted into fibrotic tissue. Numerous stones were imbedded in the calices and substance of the kidney. These would account for the slow fibrotic change, and the fact that they were fixed in the calices and not loose in the pelvis might explain the absence of symptoms.

A stone loose in the pelvis usually causes well-marked symptoms, and if "nosed" so as to block the ureter usually causes distension of the pelvis and calices, with destruction of kidney substance, and eventually pyonephrosis.

The microscope showed chronic inflammation and the kidney parenchyma replaced by fibrous tissue.

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## APPENDICITIS IN CHILDREN.\*

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BY ISAAC WOOD, M.D., KINGSTON, ONT.

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We know of no other subject in the range of medical science that requires more careful consideration from both the physician and surgeon than "Appendicitis in Children." The term "children" in this paper shall include all under fifteen.

For more than a century the ablest men of our profession have been devoting earnest thought and effort to the diagnosis and treatment of this disease, and yet it is to-day responsible for more deaths than any other acute abdominal lesion.

The history dates back almost a century. In 1812, Parkinson, a London physician, reported the first case of death from perforation of the appendix in a boy five years old. Villermay, in 1824, reported two deaths in children, after a brief illness, and in each case the autopsy showed a gangrenous appendix. In 1837, Bohr reported a case of perforated appendix in a boy ten years old, and Burne, in 1839, recorded a similar condition in a child of fourteen years.

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\*Read at Canadian Medical Association, Toronto, June 1-4, 1910.



About this time, Melier, a French physician, collected five cases, all of which occurred within a short period, and in his report of these he suggested:

1st. These conditions may not be so rare as they are supposed to be.

2nd. The appendix-ecci may be the primary seat of the disease.

3rd. Chronic suppurative tumors in the right iliac fossa may result from a primary lesion and perforation of the appendix.

4th. The possibility of surgical interference for these conditions may some day be conceived.

Melier's conclusions deserved greater recognition than was accorded them. He was evidently living in advance of his generation.

An important contribution to our knowledge of the subject was made by Goldbeck and Albers, who, after careful investigation of the origin and location of these inflammations, in the right iliac fossa, introduced the terms Typhlitis, Peri-Typhlitis, Cecitis, etc., to distinguish the several types of the disease. Up to this time the treatment of these chronic inflammations of the appendix-ecci was incision and drainage, but not before fluctuation appeared. In 1848, Hancock, an English surgeon, diagnosed inflammation of the appendix, and incised the mass without waiting for fluctuation, and to him must be accorded the honor of introducing the modern method of treating a diseased appendix.

Dr. Willard Parker, a well-known surgeon, of New York, was the next to report a series of four cases, treated by incision and drainage, one, at least, before fluctuation appeared. From his observation of these cases he concluded:

1st. That nature endeavored to throw a protective wall around the abscess.

2nd. That there was danger of this wall being ruptured by ulceration or over-distension.

3rd. That "a timely incision should be made, neither too early nor too late—not before adhesions had fully formed, nor after a short period before the maximum formation of pus had been reached—that is, from the fifth to the twelfth day." He further remarked that "gangrene and perforation were much more frequent in children than in adults, and were more dangerous because of the more rapid progress of the disease in children."

Parker's paper, published in 1867, marked a great advance in the evolution of our knowledge of the true nature of disease of the appendix, its pathology and treatment. The Willard Parker operation came into general use, and the treatment became more and

more a question of surgery. Up to this time, the writers were no doubt earnest seekers after the truth. They made careful and accurate observations, but they did not seem able to interpret or correlate the facts they observed. Their knowledge of typhlitis, peri-typhlitis and cecitis was vague and indefinite, and their conceptions of the origin, the pathology and the location of these conditions were in the suggestive rather than the positive stage. It remained for Reginald Heber Fitz, of Boston, to dispel the mists, clear away the misconceptions and bring order out of confusion. The essential features brought out in this paper (*Amer. Jour. Med. Sci.*, 1886, vol. 92, p. 32) were:

1st. That all these obscure conditions, known as typhlitis, peri-typhlitis, cecitis, etc., were only different stages of a morbid process beginning in the vermiform appendix, and that the word "appendicitis," used for the first time in this paper, was "coined" by him to call attention to the inflammation of the appendix as the primary lesion.

2nd. That an early diagnosis was imperative.

3rd. That an operation should immediately follow diagnosis.

4th. That the diseased appendix should be excised.

This paper, published twenty years later than Parker's, introduced a new and progressive era in the history of our subject. The literature of appendicitis has increased rapidly, and our knowledge has been wonderfully enriched. More than 3,000 journal articles, besides books and monographs, have been indexed in the Surgeon-General's Library at Washington since 1896.

In the study of this literature, one cannot but note the almost complete absence of any special reference to appendicitis in children. With few exceptions, recent writers have treated "appendicitis" as a disease common to all ages. Books written by Morris, Fowler, Deaver, Ochsener and others are replete with information on other aspects of the disease, but not a page or possibly even a paragraph is found to differentiate appendicitis, as it occurs in children and in adults. Among the exceptions, I may mention that Howard A. Kelley has given, in his 1909 edition of "Appendicitis and Diseases of the Vermiform Appendix," an excellent chapter on appendicitis in children, and for many of the facts in this paper I am indebted to this valuable work.

If we turn our attention to those special features which differentiate appendicitis in children and in adults, *Anatomically*, we find:

1st. That the appendix in the child is relatively larger and longer.

- 2nd. The walls are thinner; the meso-appendix is shorter, often less than half the length of the tube. This tends to kink or bend the appendix, and to limit the blood supply, especially to the distal half.
- 3rd. The entrance from the cæcum is funnel-shaped; the lumen is larger; the mucous membrane smoother and the valve of Gerlach often absent or ineffective; hence foreign bodies or morbid materials more readily find their way into the tube.
- 4th. The lymphoid tissue in the appendix of the child is more abundant and the blood supply is poor; hence destructive processes go on more rapidly, and the liability to gangrene and perforation is greater.
- 5th. The omentum is relatively smaller and less effective in walling off a gangrenous or perforated appendix.

*Pathologically*, we note:

- 1st. These inflammations of the appendix induce a greater effusion of serum in children than in adults.
- 2nd. That this effusion quickly becomes purulent.
- 3rd. The occurrence of gangrene and early perforation is more frequent in the child.
- 4th. That abscesses are more likely to form and to rupture in children than in adults.
- 5th. That there is greater tendency to spreading peritonitis. (Sprengel found 46.8 per cent. among his cases.)
- 6th. That intoxication of the system is more rapid and intense in children.

*Clinically*:

These differential features assume more than ordinary interest and importance. We have not time to discuss them in detail. We simply mention some of the general principles:

- 1st. That appendicitis in the child is more sudden in its onset, rapid in its progress and intense in its symptoms than in the adult.
- 2nd. That the unstable conditions of the nervous system (peculiar to children) may lead to confusion or error, and may delay or prevent a positive diagnosis.
- 3rd. That abnormal conditions are frequently met with in children which render the clinical phenomena vague and misleading; for example, right-sided pleurisy or pneumonia may simulate appendicitis, the pain, tenderness and rigidity being located in the right iliac fossa. Or

in abnormal positions of the appendix (common in children), the pain and other symptoms may be found on the left side of the abdomen, in the epigastric region or under the costal arch.

We feel that a due appreciation of the anatomical, pathological and clinical features already noted should enable us to not only differentiate appendicitis in children from the same disease in adults, but to set it apart as a subject for special and separate consideration in its diagnosis, its prognosis and treatment.

We are told by eminent authorities that "the diagnosis of appendicitis is generally easy." This may be true in adults; it is not true in children. The recognition of appendicitis in the early stages—when operation would be successful—is extremely difficult. The cardinal symptoms of appendicitis—sudden acute pain in the right iliac fossa, tenderness over McBurney's point, rigidity of the right rectus muscle, vomiting, elevation of temperature, acceleration of pulse, etc.,—which are quite constant in the adult, are irregular, uncertain, and have little diagnostic value in the child.

The prognosis of appendicitis in the child ought to be good. Compared with the prognosis in the adult, it is bad, very bad. In 1907, the average mortality for children in six large clinics was 19.23 per cent.; for adults it was 2.9 per cent.

Dr. J. B. Murphy says: "We should have no deaths from appendicitis"; but we have them. What are we going to do about it? Where does the responsibility rest for this terrible mortality, this veritable "slaughter of the innocents"?

From a careful review of the literature of appendicitis, and from observation, we have come to the following conclusions:

1st. That the occurrence of appendicitis in children is much more frequent than it is generally supposed to be. Selter found that appendicitis was seven times more frequent before the age of fifteen than it was from fifteen to thirty.

2nd. A large percentage of cases that occur are not diagnosed.

3rd. A large percentage of cases are diagnosed too late for successful treatment.

4th. That the current literature of appendicitis should be revised, and those features of the disease peculiar to children should be clearly set forth and strongly emphasized.

5th. Our "diagnostic senses" should be awakened and trained to recognize the earliest, the initial symptoms of the disease.

6th. Physicians and surgeons should be made to realize that an early diagnosis is imperative in the case of children.

7th. That diagnosis should be followed immediately by operation.



## Reviews

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*Operative Surgery.* W. I. DEC. WHEELER, M.D. London: Bailliere, Tindall & Cox.

This, the second volume of the work, is modeled after Treves' small operative surgery.

It contains some three hundred pages of well-written matter, and is very well illustrated.

Some new features are introduced, such as the modern method of doing Syme's amputation by dissecting from the front and using the foot as a lever instead of the tedious plan of freeing the heel flap. The author still advocates the V-shaped incision for epithelioma of the lip, a procedure which is responsible for the frequent recurrences. The author seems to have a mistaken idea as to the significance of the seat of election in leg amputation—that being applicable to the old bucket stump.

The book, while not intended for surgeons, should be welcomed by students, for whom it is well adapted.

G. E.

*Disorders of Metabolism and Nutrition.* VON NOORDEN. Part VIII. Inanition and Fattening Cures. Part IX. Technique of Reduction Cures and Gout. Authorized American Editions. Edited and translated under the supervision of Alfred C. Croftan, M.D., Chicago. Price, each, \$1.50. New York: E. B. Treat & Co.

Carl Von Noorden speaks with authority upon these studies. The two monographs are the substance of four lectures delivered in a post-graduate course to Vienna physicians in May, 1908. Based upon sound physiologic reasoning, they are limited to theoretical and clinical experience, and are, therefore, of value in actual practice. The lectures are on: Inanition and Undernutrition; Fattening Cures; Technique of Reduction Cures; Gout, Nephrolithiasis, Uricæ and their Treatment. They are eminently a justly scientific deliverance upon these subjects.

*The Pathology of the Living and Other Essays.* By B. G. A. MOYNIHAN, M.S. (London), F.R.C.S., Honorary Surgeon to Leeds General Infirmary; Professor of Clinical Surgery at the University of Leeds, England. 12mo. of 260 pages. Philadelphia and London: W. B. Saunders Company. 1910. Cloth, \$2.00 net. Canadian Agents: The J. F. Hartz Co., Ltd., Toronto.

This is a very readable, entertaining and instructive book of 260 pages. It is a volume of essays or addresses, which have previously been published in various medical journals, and now collected within covers. It goes without saying they will be read and admired,

not alone by surgeons, but by internists and general practitioners, with much profit. From the well-known proclivities of the author, almost every essay embodies much of thought and moment of the biliary apparatus. Probably the most interesting essay from the standpoint of the internist is the one dealing with "Inaugural Symptoms."

*Practical Suggestions in Border Land Surgery.* For the use of students and practitioners. By GUSTAVUS M. BLECH, M.D., Chicago. Philadelphia: Professional Publishing Company.

This little book is brimful of common sense, and may be read with much profit by all, especially the man who is youthful in surgery. Described as a big-little book, it is always concise, pointed, and possesses many original features.

*International Clinics.* Vol. II. Twentieth Series. 1910. Philadelphia, London and Montreal: J. B. Lippincott Company.

In this issue there are many good articles on Diagnosis and Treatment; Medicine; Surgery; Obstetrics; Dermatology; Paediatrics, Neurology; and amongst the miscellaneous topics is a very interesting article on physicians' "hobbies." Benedict writes a comprehensive review of the progress of therapeutics during the past twenty years, and James J. Walsh one on the progress of medicine in the same period. John G. Clark has a series of clinical lectures, which were delivered after Easter—home-coming week of the University of Pennsylvania. John B. Denver contributes clinical reports. Standing in a class by itself, *International Clinics* is a periodical every progressive practitioner would profit by having, as it covers the entire field of medicine.

*A Text-Book of Medical Jurisprudence and Toxicology.* By JOHN GLAISTER, M.D., D.P.H. (Camb.), F.R.S.E., Professor of Forensic Medicine and Public Health in the University of Glasgow, etc., etc. With 130 illustrations. Edinburgh: E. & S. Livingstone.

Everywhere cases in legal medicine and poisoning cases are frequently popping up, and the live medical man must needs in these have the latest and best productions on these subjects. This, the second edition of a work which was exceedingly well received in 1902, will be found brimful of the best in these lines. The present edition, owing to the comprehensive scope of the work, including medical jurisprudence, toxicology and public health matters, is being issued in two volumes. The text of this volume embraces 764 pages and deals with medical jurisprudence and toxicology. When complete the work will be a splendid exposition of these subjects, and will be found of the best benefit to students and practitioners of both medical and legal professions.

# Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

**Medicine:** Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross, Wm. D. Young.  
**Surgery:** Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.  
**Obstetrics:** Chas. J. C. O. Hastings, Arthur C. Hendrick.  
**Pathology and Public Health:** John A. Amyot, O. R. Mabey, Geo. Nasmith.

**Psychiatry:** Ernest Jones, W. C. Herri-  
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## COMMENT FROM MONTH TO MONTH.

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**Medical Education in the United States and Canada** is the subject of Bulletin No. IV. of the Carnegie Foundation for the Advancement of Teaching. It is a rather bulky volume of 346 pages, and has been met with varying criticism at the hands of the medical profession, the medical press and universities, and medical schools and colleges: this, too, in spite of the fact that the President of the Foundation, Dr. Henry S. Pritchett, clearly states in his introduction the studies were taken to serve a constructive and not a critical purpose.

The report is indited by Mr. Abraham Flexner, brother of Dr. Simon Flexner, of the Rockefeller Institute, and—the President to the contrary notwithstanding—is a forcible and exhaustive criticism of medical educational methods and some medical schools and colleges in both countries.

Coming as the second of two thorough investigations—the first being by the American Medical Association—in the past five or

six years, it profits by the experience of the former, and savors somewhat of "the last word being said on the subject."

To Canadians, so far as medical education and existing institutions in this country are concerned, there is nothing very much new. The conditions here have long been evident, the defects apparent, and the short-comings quite well known. It is new, however, to us that even one of our medical schools is rated or berated as being as bad as anything in the United States, that country so prolific of educational institutions, where, if not now, then in the past, degrees and even "sheepskins" have been sold in the open market. We have no sectarian schools here in medicine, as the report says, so one in Canada cannot possibly be as bad as what obtains across the border. All our medical schools provide clinical and laboratory instruction, be it never so meagre; it is not apparently so in the United States. Surely not one of our schools is as bad as some of the eclectics, the homoeopathic, the physiomed; or yet the osteopathic.

The self-appointed critic seems to have some doubt anent the future of Queen's. We may tell him there is no doubt about it in this country. It has long been considered here one of our best institutions.

Withal we believe the report in general will serve a good purpose. It will stimulate to higher qualifications and much better instruction in every form, for in no one or two forms of teaching is to be found the best method, but in all combined.

That part of the report which deals with the sectarians the osteopaths, we commend for diligent reading and earnest digest to the powers that be, who may contemplate here in this or any other province of Canada, the enactment of legislation in the interests of those who in the pursuit of pure commercialism, would seek to set aside proper qualifications for those who are charged with the prevention and treatment of the ills flesh is heir to.

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**Ontario Medical Council.**—That the medical editorial is of importance and exerts an influence of its own has surely been proven quite recently in Toronto. In the *Canadian Journal of*



*Medicine and Surgery*, the Managing Editor, Dr. W. A. Young, for several issues, has been calling in question the business methods of the Medical Council of the College of Physicians and Surgeons of Ontario. Taking his cue from the printed announcement of 1909, Dr. Young penned a series of irritating editorial articles, which attracted wide attention, not only amongst the medical faculty of the province and the medical press, but invaded even the public mediums. The climax came at the forty-fifth annual meeting of the Council in Toronto on the 6th, 7th, 8th, and 9th of June. Denied, repeatedly, statements of the finances of the Council in detail, Dr. Young carried the war into Africa, and during the actual sitting of the Council, wrote demanding that, as a member in good standing, he be given a detailed statement of the receipts and disbursements of the Council for the past three years. The weather at the time was exceedingly warm, and the Council Chamber occasionally superheated. Dr. Young gained his point partially, in that he was permitted, for his delectation and profit, to examine the books, to con and collate for himself.

President E. A. P. Hardy, of Toronto, opening the annual session, delivered the annual presidential address and set the ball rolling. He stated, in referring to the editorials in question, that he had refused, as President, to order the Treasurer to allow access to the books at the instance of Dr. Young, a member of the College, but not connected with the Council in any way, and, therefore, not responsible to any one. He was not to be dragooned by the irresponsible editor of a "flamboyant" medical journal. The proper place to discuss matters of this character was at the Council meetings, and not in the public press—Dr. Young's editorials were reproduced in the public press. This, we opine, is a level-headed sentiment, but does not well dove-tail with the freedom of access the lay reporter enjoys during the time of the Council meetings. Altogether there has been too much, far too much, publicity in this particular matter, if not, indeed, in all matters connected with the governance of the profession of Ontario through the medium of the Medical Council.

There are many eminent medical men of the Province of Ontario having seats in the Ontario Medical Council. Indeed, it

would be a difficult matter to get together a better body of representative men of the profession; but, somehow or other, the present Council does not appear to be able to conduct the financial affairs of that body successfully—hence the criticisms. Expenses are increasing; funds are diminishing. In 1909, when the receipts were the largest of any year in its history, the balance to the credit of the Council was \$48,359.41. By the date of the annual meeting this amount had declined to \$41,168.27. As there has been a gradual diminution in capital, it is little wonder that Dr. Young, or even someone else, has pointed out that a continuance of this state of affairs would in the end lead to bankruptcy. Numerous were the suggestions to save. One member would cut out the per diem allowance to members; another would appoint men on committees who would not have far to travel; still another would do away with examinations at other places than Toronto; a fourth would close out the additional examination in the fall; a fifth saw a remedy in the appointment of a chartered accountant as auditor, and so on, even to reducing the number of territorial representatives, the university representation, and the homoeopathic representation. If decided action had been taken on all these suggestions, we trow, the Council would have come pretty nearly to squaring itself with the electorate.

So far as the representation on the Council goes—it numbers 32—it would have been wise for the present Council, even though it is a moribund body and next elections take place in December of the present year, and this, therefore, being the last session of the Council, for it to have placed itself on record as favoring a reduction in the representation. Dr. J. S. Hart, of Toronto, who proposed this resolution, must have been chagrined when his resolution was characterized “an electioneering dodge.” It is one of the best possible reforms which could emanate from within the body, as there are, unfortunately according to law, men sitting, who represent, if they can represent, defunct institutions; nor need one pass any comment upon the necessity of a speedy reform of the homoeopathic representation, five sitting and voting upon the conduct of the profession throughout Ontario (numbering over 3,000), sitting

there, speaking, directing, voting and representing a paltry "pocket borough" constituency of thirty odd. It is the principle which is wrong, not the men.

Toronto University sent a deputation from its medical faculty, consisting of Professor McPhedran, Professor Irving H. Cameron and Professor Alexander Primrose, asking that the annual examination period be postponed until after the month of May. Dr. McPhedran was the chief spokesman. He called the attention of the Council to the fact that their requirements called for an eight months' session, but it was made impossible for the University to carry that out, as the Council examinations were held too early. Owing to the enormous amount of work the medical student has to get over now to what he had to do ten years ago, the deputation asked that the time be extended to give the student some time for private thinking and private reading. The present tendency, according to Dr. McPhedran, was for the student to get information without knowledge, and so not be able to apply what he learns. Dr. Primrose, in supporting Dr. McPhedran, said they could not begin the term earlier than October, as that had been tried at McGill and had to be abandoned. Mr. Cameron gave his moral support to the requests. The Council promised consideration.

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**Medical Health Officer for Toronto.**—The deadlock in connection with the appointment of medical health officer for Toronto has been broken by the reappointment of Dr. Charles Sheard to that position. Some months ago Dr. Sheard resigned after a service of some seventeen years; and during this period the Board of Control of Toronto has been struggling with the appointment of a successor. Dr. Charles Hodgetts, Toronto, was offered the position, but declined. Dr. Hodgetts has recently resigned from the secretaryship of the Ontario Board of Health to accept the position of medical director of the Canadian Conservation Commission. Dr. John Amyot, bacteriologist of the Ontario Board of Health, was strongly favored by the Toronto profession for the position, but he, as well as Dr. C. J. C. O. Hastings, could not muster the required number of votes in Council for appointment,

so Dr. Sheard was reappointed. Either would have made excellent officials. Dr. Amyot has recently succeeded to the chair of hygiene in the University of Toronto, vacated through the resignation of Dr. William Oldright.

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**The Extermination of the Fly** is becoming an important feature of sanitation. How to deal with the fly nuisance is the title of a card issued by the Department of Agriculture, which might well be hung in every kitchen, restaurant and other places where these pests abound. Any physician can secure cards by addressing the Entomological Division, Central Experimental Farm, Ottawa.



## News Items

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### FROM BULLETIN No. IV.—CARNEGIE FOUNDATION.

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In the United States and Canada there are 3,533 professors and 4,828 instructors, teaching 23,927 medical students. The annual income from fees is \$2,896,744.

Canada, with an estimated population of 6,945,228, has 6,736 physicians, a ratio of 1 to 1,030.

In the United States there are 32 sectarian medical schools: fifteen are homœopathic, eight eclectic, one physiomedical, eight osteopathic. In Canada there is none.

One osteopathic school in the United States has a student body of five hundred.

Medical students are distributed in the different Canadian institutions as follows: Winnipeg, 115; Halifax, 63; Kingston (Queen's), 208; London (Western), 104; McGill, 328; Laval, Montreal, 217; Laval, Quebec, 92; Toronto, 592. Total, 1,719.

Winnipeg General Hospital has 400 beds; Victoria General Hospital, Halifax, 200 beds; Kingston General Hospital, 80 beds; Toronto General Hospital, 500 beds; Montreal General and Royal Victoria about 500 beds; about 250 beds in Notre Dame and Hotel Dieu. These are available for clinical purposes.

The number of women medical students in Canada and the United States in 1909 was 921, and the number of women graduates, 162. These numbers seem to be diminishing, now that they have free access to the medical profession. In 1904 the number of students was 1,129 and the graduates 254.

The increase in Canada's population last year was 239,516, requiring 160 new physicians; losses by death are estimated at 90 (too many). At this rate, 250 doctors are required each year in Canada. According to the report, these could be sent out by McGill, Toronto, Laval at Quebec and Manitoba.

Manitoba Medical College collects \$14,000 annually in fees; Halifax, \$5,000, and \$1,200 from the Provincial Government;

Queen's, \$19,978; Western, \$11,590; Toronto, \$64,500; McGill, \$43,750, and in addition an endowment of \$350,000, making its budget reach \$77,000.

The teaching staff of Manitoba is 22 professors and 19 of other grade; Halifax, 16 professors and 17 others; Queen's, 16 professors, 22 others; Western, 8 professors, 12 of other grade; Toronto, 27 professors, 41 of other grade; McGill, 19 professors, 80 of other grade; Laval, Montreal, teaching staff eight; Laval, Quebec, teaching staff, 22.

The United States has a negro population of ten millions and seven medical schools for negroes.

There are three women's medical colleges in the United States; combined schools, 94; co-educational medical schools, 91.

The eight osteopathic schools in the United States now enroll over thirteen hundred students, who pay some \$200,000 annually in fees.

There are 13 post-graduate medical schools in the United States.

In New York State, homoeopaths, eclectics and osteopaths making together but a negligible proportion of the practising physicians of the State, have together a majority on the State Examining Board.

In Germany there are twenty-two medical schools; in the United States, 155.

While the population of the United States increased 5,000,000 from 1904 to 1909, the medical student-body decreased from 28,142 to 22,145.

The average annual production of doctors in the United States from 1900 to 1909 was 5,222. In June of 1909 the number had dropped to 4,442.

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ACCOMPANYING his annual letter, in which he asks the readers of THE DOMINION MEDICAL MONTHLY to send him the names and post-office addresses of any boys or girls, known to them, whose eyesight is so defective that they cannot attend the Public Schools with advantage, Principal Gardiner, of the Ontario Institution for the Education of the Blind, at Brantford, sends us a card on which

he has printed, without ink, the letters used by the blind in their reading. These letters are composed of raised dots or points, arranged in two horizontal rows, and the combinations of points that have been contrived to represent the various literary, numeral and musical characters are most ingenious. Point letters are much easier to read with the fingers than line letters, and blind children soon learn to read and write words, figures and music signs, the writing being done with a steel stylus and a brass frame which they call a slate. The School for the Blind is maintained by the Ontario Government as a part of our free school system, under the supervision of the Minister of Education, and the Principal will promptly answer any letter of inquiry concerning the school and its work.

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ESTEVAN, Sask., is building a cottage hospital.

DR. T. G. RODMICK, Montreal, has sailed for England.

VICTORIA, B.C., will raise \$45,000 for an Isolation Hospital.

EDMONTON, Alta., has voted \$175,000 for hospital construction.

DR. A. J. FRALEIGH, Toronto, has been on a visit to the Pacific Coast.

DR. J. M. ROGERS, Ingersoll, Ont., has been visiting in California.

DR. DENMAN ROSS, Harvard University, is visiting in Vancouver.

DR. H. G. MCKID, Calgary, has been on a visit to Toronto and Montreal.

DR. D. MCGILLIVRAY, Toronto, has been visiting Western Canada.

DR. GRAHAM CHAMBERS, Toronto, is spending July and August in Maine.

THE Victoria Hospital at Fredericton, N.B., is to be greatly enlarged.

DR. JOHN B. MURPHY, Chicago, is the President-elect of the American Medical Association.

DR. E. E. KING, Toronto, is spending August at his summer home in Hastings County, Ontario.

DR. CHAS. F. MARTIN, Montreal, has been elected President of the Montreal Medico-Chirurgical Society.

DR. ALEXANDER HUGH FERGUSON, Chicago, has been elected President of the Chicago Medical Society.

DR. D. FULLER MCKINLEY, Preston, Ont., has retired from practice and will become a missionary to China.

DR. P. H. BRYCE, chief medical officer for the Department of the Interior, has returned from a trip to England.

OVER fifty cases of smallpox are in Brantford, and the authorities are considering ordering a general vaccination.

DR. J. D. MCKAY, Marion, Indiana, Trinity, '95, has been visiting in Toronto and his old home town, Whitby, Ont.

DR. A. H. BEATON, Superintendent of the Provincial Hospital at Orillia, has resigned after thirty-four years' service.

THE management of the Toronto Isolation Hospital is to be made the subject of a judicial enquiry in the near future.

THE Nova Scotia Medical Society has elected Dr. James Ross, Halifax, President, and Dr. J. R. Corston has been re-elected Secretary.

THE Daughters of the Empire, Vancouver, will erect a hospital for convalescents and incurables, which will be a memorial to King Edward VII.

DR. CHARLES DOHERTY, Superintendent of the New Westminster Hospital for the Insane, has been visiting similar institutions in Eastern Canada.

DRS. F. N. G. STARR, Helen MacMurchy and R. A. Reeve, Toronto, are in England, attending the annual meeting of the British Medical Association.

DR. BRYDONE-JACK, Vancouver, is in charge of the work of medical inspection of schools in that city. He personally examines about 10,000 children.

DR. W. H. B. AIKINS, Toronto, has bought 130 Bloor Street West, is making extensive alterations, and will remove there from College Street in the fall.

THE new wing for the Toronto Isolation Hospital is now under



construction, and will be ready for occupation about June 1st, 1911. It is to cost \$102,000.

DR. J. GEORGE ADAMI, McGill University, will represent the Canadian Association for the Prevention of Tuberculosis at the Tuberculosis Conference in Rome.

DR. MACKENZIE, Winnipeg, has been appointed surgeon to the Canadian Northern Railway from Fort William to Vancouver. He will reside in future in Victoria, B.C.

By the spring of 1912 it is expected that the out-patient and emergency departments of the Toronto General Hospital will be completed on their new site on College Street.

TYPHOID fever in Montreal last year claimed 212 deaths out of 1,892 cases. So far this year there have been 700 cases, with 150 deaths. The Montreal hospitals are again turning away cases.

DR. J. W. S. MCCULLOUGH, Alliston, Ont., a member of the Ontario Board of Health for the past four years, has been appointed Secretary of the Board in succession to Dr. Charles A. Hodgetts.

THE Canadian Medical Protective Association now has a membership of about 700. The Society has nearly \$7,000 on deposit, and in 1909 only had to defend two cases, one of which was successfully defended, and the other still before the courts.

THE annual meeting of the Toronto Academy of Medicine was held on the 3rd of May. The books in the library now number 5,375, not counting duplicates. During the past year 292 Fellows paid \$10 each; 9 Fellows paid half-yearly fees, and 30 non-resident Fellows paid \$5 each.

THE Dominion Government will require three surgeons for the Canadian Navy. They must not be over thirty years of age, will receive \$4 per day for three years, and after that \$5 per day up to five years. At the completion of service, they will each be given gratuities of \$1,000 to \$1,500.

THE Maritime Medical Association has elected the following officers: President, Dr. E. A. Kirkpatrick, Halifax; Vice-President for Nova Scotia, Dr. G. E. Dewitt, Wolfville; Vice-President for P.E.I., Dr. H. E. McEwen, O'Leary; Vice-President for N.B., Dr. G. G. Melvin, St. John; Secretary, Dr. G. G. Corbett, St. John; Treasurer, Dr. D. C. T. Watson, Halifax. At the recent annual

meeting, in St. John, on the 21st and 22nd of July, Dr. Edward Archibald, Montreal, General Secretary of the Canadian Medical Association, made an address urging Maritime medical men to become permanent members of the Canadian Medical Association.

AMERICAN PUBLIC HEALTH ASSOCIATION TO MEET IN MILWAUKEE.—The American Public Health Association will hold its 38th annual meeting in Milwaukee, Wisconsin, September 5th to 9th next. Representatives from many of the national organizations working in the interest of public health have been invited to be present and to discuss methods for the correlation of the work of such organizations, and for co-operation, with a view to increasing efficiency and economy. Sanitary engineering will occupy a conspicuous place on the programme. This Association is the oldest national sanitary organization in the United States. Its membership extends over the United States, the Dominion of Canada, Mexico, and Cuba. Information concerning it can be obtained by addressing Dr. Wm. C. Woodward, Secretary, Washington, D.C.

THE Seventh International Congress of Dermatology and Syphilography will be held in Rome, September, 1911. Dr. Graham Chambers, Toronto, has been appointed Secretary for Canada.

## Publishers' Department

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A LONG-FELT NEED SUPPLIED.—The need for an abdominal supporter that will *do the work* is constantly being borne in upon the minds of the medical profession everywhere.

By the introduction of the Storm Supporter, this need is fully met. Invented by a physician, whose practice had taught her the great need of a perfect support in cases of abdominal weakness, it is made so that it can be adapted to any and every condition to which an abdominal supporter can be applied.

Its comfort and efficiency equally recommend it to those who use it. Sole Agent in Canada, Miss Trevorrow, 192 Jarvis Street, Toronto.

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Dr. Hamill, Medical Broker, who conducts the Canadian Medical Exchange, 75 Yonge St., Toronto, for the purchase and sale of medical practices and properties, desires us to state that the inhabitants of several different villages throughout Ontario without a doctor have written him to try and induce some physician to locate therein. The population and area should warrant a practice of at least from two to three thousand yearly, cash. He will be pleased to furnish the names of those villages to any who think the opening would suit them. At the same time, to those wishing to buy a practice, he has a list of over twenty to offer, thus offering a short-cut to those in need.

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COLONIC FLUSHING.—The supplementary treatment of intestinal disorders of children by irrigation of the colon is a method of treatment long used and invariably successful, if the proper technique is used and details carefully adhered to. These details include a properly medicated solution, a proper temperature and its introduction into the bowel by a suitable tube.

Since using Glyco-Thymoline, I have continued with that medicament, as I have found its use invariably followed with success. The temperature should be about 70° or 80° F. Ice-cold solutions I do not approve of as, in feeble children, serious collapse has often followed their use. Where the case is more acute, temperature

high, and patient's vitality little impaired, cold solutions may not cause such serious symptoms; but the warmer solution of Glyco-Thymoline fluid will, I am assured, reduce the temperature sooner by removing the bacterial factors more effectually.

The child, whose clothing must be removed, is placed on a table, on which may be laid a quilt covered by a rubber sheet, the buttocks raised slightly and body inclined and supported towards the right side. The receptacle for the solution, a glass irrigating outfit or fountain syringe, is suspended about three and a half feet above patient. A soft rubber catheter of the largest size is secured to the tubing of the irrigator. About seven and a half to eight inches from the catheter's distal end, a cotton bandage, whose edges are frayed, is wound around till a diameter of three and a half inches is reached. This permits a firm pressure around the anal orifice, and produces no discomfort to the child.

The catheter, well lubricated, is now carefully introduced, and the Glyco-Thymoline solution permitted to flow in advance of the tube, thus inflating the bowel and permitting an easy introduction. As the fluid is passing onwards the contour of the bowel may be seen, and a careful manipulation of abdomen will assist its advance. The amount necessary to fill the colon, as the ileo-cecal valve is the limit of irrigation, will be, for a child of six to eight months, from fourteen to sixteen ounces; a child of one and a half to two years, thirty to thirty-six ounces. The amount specified must be present in the bowel before the Glyco-Thymoline is permitted to run out. The flushing must be continued until three and a half quarts are used. If properly done, more than one irrigation in twenty-four hours in acute cases, or two in the same period of time for chronic conditions, will not be necessary.—T. D. LYONS, M.D., New York City.

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THE ANEMIA OF THE NEPHRITIC PATIENT, like that of any organic disease or constitutional infection, is secondary in nature and is caused by, or is dependent upon, the original lesion or infection. There is, however, another element to be considered in this connection, *i.e.*, the influence of an iron-poor milk diet in increasing the degree of anemia from which the patient suffers. It is pretty generally conceded by authorities and clinicians of experience that a bland milk diet is best suited to the needs of the nephritic invalid, as the damaged kidneys are thus spared the irritation which results from the excretion of the products of the metabolic changes of the



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	Ext. Aloe.....	1 gr.
	Ext. Nux Vomica.....	$\frac{1}{4}$ gr.
No. 58 {	Blaud.....	= 15 grs.
	Ext. Aloe.....	1 gr.
	Ext. Nux Vomica.....	$\frac{1}{4}$ gr.

## Blaud Arsenic and Nux Vomica

No. 59 {	Blaud.....	= 5 grs.
	Arsenical solution.....	= 1 min.
	Ext. Nux Vomica.....	$\frac{1}{4}$ gr.
No. 60 {	Blaud.....	= 10 grs.
	Arsenical solution.....	= 2 mins.
	Ext. Nux Vomica.....	$\frac{1}{4}$ gr.

## Blaud Arsenic and Strychnine

No. 61 {	Blaud.....	= 5 grs.
	Arsenical solution.....	= 2 mins.
	Strychnine.....	1-50 gr.
No. 62 {	Blaud.....	= 10 grs.
	Arsenical solution.....	= 2 mins.
	Strychnine.....	1-50 gr.

## Blaud Tonic Laxative

No. 65 {	Blaud.....	= 10 grs.
	Arsenical solution.....	= 2 mins.
	Ext. Nux Vomica.....	$\frac{1}{4}$ gr.
	Phenolphthalein.....	$\frac{1}{2}$ gr.

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meat proteids, etc. It is well known, however, that milk contains but an infinitesimal proportion of iron, and the patient who subsists entirely upon this fluid for any length of time is deprived of the food-iron that is normally supplied to the blood to maintain its hematin and hemoglobin. This deficiency can be readily made good by administering Pepto-Mangan (Gude) both during and after the milk diet period. This palatable, organic, ferruginous compound is entirely free from irritant action upon the kidney, and it does not disturb the digestion or cause constipation. The essential iron is supplied in tolerable and promptly assimilable form and the use of the remedy does not, in any way, interfere with such other treatment as the physician may see fit to adopt.

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#### THE DOSE OF CODEINE.

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Frankel (*Munich. Med. Woch.*) claims that codeine must be given in larger doses than is generally used, in order that the full effect may be obtained, as codeine is from ten to twenty times less powerful than morphine. The proper dose should be two-thirds or three-fourths grain, and this amount may be given three or four times a day without any evidence of habit formation. The single maximum dose permissible is one and one-half grains, and maximum daily dose is four and one-half grains. For children the daily dose may be as follows:

4 years of age.....	1-6 grain
6 years of age.....	1-3 grain
8 years of age.....	2-3 grain
12 years of age.....	1½ grains

—*Meyer Brothers Druggist, July, 1910.*

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HENRY WAMPOLE EXCURSION.—The first annual excursion of the employees of Henry K. Wampole & Co., Limited, where the whole laboratory took part, was held Saturday, July 23rd. The St. Louis and Arrah Wannah were chartered for the day and the trip was made up the Rideau Lake to the Rocky Narrows. About 120 of the employees, accompanied by a limited number of their most intimate friends, took part, and from the time the boats left Perth until their return it was a continual round of pleasure. In



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fact, it was, without doubt, the most successful and thoroughly enjoyable excursion that has been held in this vicinity. A substantial lunch was spread at the Rocky Narrows and was thoroughly appreciated by all. A programme of sports was arranged and very successfully carried out. After the sports a very enjoyable trip was made to the Ferry, supper being spread on tables on the lawn in front of the Coutts House. Much credit is due Mr. King for the excellent table which he placed before the assembled guests. After supper, the prizes were distributed to the successful winners in the different events of the sports. The entertainment programme was given from the St. Louis, and it was a surprise to many to find such talent contained in the laboratory. An early boat was scheduled to leave for Perth at 7.45, about thirty taking advantage of an early return home, while the majority remaining took a moonlight up the lake, returning to the Ferry in time for a dance. A delightful trip home brought to a close a day of good wholesome enjoyment, and great credit is due to the committee who made such splendid arrangements whereby the proceedings were put through to the satisfaction of every individual person who took part in the excursion. This is the first excursion in which all the employees participated, and it is the wish of all that there will be many more to follow. The following is a list of the prize-winners in the several events: 100-yard dash for men—1st, Dalton Affleck, a fishing rod; 2nd, Robt. Carr, pair cuff links. 50-yard dash for girls—1st, Miss Margaret Davis, silver thimble; 2nd, Miss Helen Hartney, silver cuff links. Needle race—1st, bonbon dish and watch fob, won by Miss Ivie King and Mr. John Lyon; 2nd, cream jug and pocket knife, won by Miss Litang and Benson Roche. 100-yard dash for men over 32—1st, pearl-handled knife, won by R. Leach; 2nd, half-dozen handkerchiefs, won by John Lyon. Potato race—1st, pair cuff links, won by Miss Helen Hartney; 2nd, cream jug, won by Miss Katie McCarthy. 50-yard dash for married women—1st, silver salt cellar, won by Mrs. Chaplin; 2nd, silver cuff links, won by Mrs. Hutchinson. Three-legged race—Pocket knife and neckties, won by R. Carr and D. Affleck. Running hop, step and jump—1st, pair cuff links, won by J. Hartney; 2nd, necktie, won by R. Leach. Putting the shot—1st, pocket knife, won by W. Pennett; 2nd, troll, won by Joe Steacy. Throwing the baseball, girls—1st, half-dozen silver spoons, won by Miss M. Conlon; 2nd, brooch, won by Miss J. Dodds. 100-yard dash for all girls wishing to be married—(Heavy entries)—1st, a new greenback, won by ———; 2nd, a silver piece, won by ———. 50-yard dash for old maids—No entries.



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CUTANEOUS SYPHILIS.—A. Ravogli, Cincinnati (*Journal A. M. A.*, January 1), publishes the results of his studies, microscopic and otherwise, of the proliferating growths of syphilis. He remarks that in a short article on elephantiasis (*Jour. Cutan. Dis.*, 1906), presented to the American Dermatological Association, he had maintained the luetic origin of this condition when occurring in the genitals, in many instances. He also held that all cases of elephantiasis are started by the presence of infectious germs or of parasites causing irritation and lymph stasis. He goes at length into showing how the germ of syphilis acts in producing vegetating papillary growths, etc. His microscopic findings are illustrated, and he comes to the conclusion that the proliferating masses of the tertiary syphilitic ulcers show no special characteristics, but have common characters with the proliferations of other morbid processes. The imbibition of the tissues from the lymph stasis, the hypernutrition of the connective tissue corpuseles, cause their division and their proliferation. The normally limiting elastic fibres are gradually lost, and the collagenous elements are left free to proliferate without restraint. That the spirochete is a starting-point cannot be doubted, as they are shown in the secondary vegetating patches. In the tertiary, they were not found, but this does not disprove the above assertion. It is possible they are not so readily stained, or may be concealed in the deeper tissues. As regards treatment, it is not difficult to cure the secondary proliferated patches by internal constitutional treatment with external application of calomel or solution of mercurial chloride, one to five hundred. In some cases strong caustics may be necessary. In some cases other measures, like the use of iodide, local bathing with bichloride solution, one to one thousand, and local applications of mercurial plasters have been satisfactory, while in others, extensive curetting was required.

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It is but just that I should attest my satisfaction with the use of Resinol Ointment. It is a marvel of efficiency in pruritus ani. Also in relief of soreness due to the irritation of the discharge from acute nasal coryza, it acts like a charm.—J. H. Thompson, M.D., Goshen, N.Y.

# Dominion Medical Monthly

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## Original Articles

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### MASTOIDITIS IN INFANTS.

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GEO. H. MATHEWSON, B.A., M.D., MONTREAL.

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*Mr. Chairman and Gentlemen:—*

I feel sure that I shall be called to task for making use of the above title in face of the fact that many authorities state that the infant has no mastoid process.

I plead in support of my choice, first, expediency, since the term conveys a certain topographical idea, that is that the disease is in the temporal bone behind the ear; and, secondly, I maintain that there are mastoid cells in infants of six months, and even less, although there may be no mastoid or nipple-shaped form to the bone externally.

Holden (and his statement is given almost verbatim in Quain) says: "The mastoid process begins to be developed about the second year, but its air cells do not appear until puberty."

Morris—page 48—says: "The mastoid process becomes distinct about the first year, coincident with the obliteration of the petrosquamous suture. It increases in thickness by deposit from the periosteum. Towards puberty, rarely earlier, the process becomes pneumatic. At birth the antrum is relatively large and is bounded externally by a plate of bone belonging to the squamosa. As the mastoid increases in thickness the antrum comes to lie at a greater depth and becomes relatively smaller."

Cunningham—page 118—says: "At birth the outer surface of the petrous part not only forms the inner wall of the tympanum,

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\*Read at Canadian Medical Association, Toronto. June, 1910.

but is hollowed out behind and above to form the inner side of the mastoid antrum, the outer wall of which is completed by the post-auditory process of the squama."

Bruhl and Politzer say: "The posterior extremity of the petrous portion is formed by the mastoid process. In the new-born it is represented by a small prominence that contains no airspaces except the bean-shaped antrum. The antrum resembles in size and shape that of the adult (12 mm. long by 8 mm. high, by 6 mm. broad). At birth it lies immediately beneath the cortical portion of the squama, but as the meatus develops the mastoid cells develop and it assumes a deeper position. In the third year the mastoid cells reach their full development."

You can see here that there is quite a diversity of opinion among the anatomists, the more recent writers granting that there is a mastoid process at the end of the first year. Some obscurity is caused by speaking of the development of the pneumatic spaces as if these cells were essential, for while we all know that bone in most parts of the body generally becomes more pneumatic as age advances, yet there are individuals in whom the mastoid never becomes pneumatic, but remains diploetic. In all the cases comprised in the series I intend to speak of there was within the cortex cancellous bone, and in some of the cases the spaces were as large as in some adult mastoid bones.

During the two years ending April 28th, 1910, I operated on a series of fourteen cases of this nature occurring in eleven infants (the disease in three cases being bilateral), whose ages varied from four months to twenty months. I have arbitrarily selected twenty months as being the upper age limit of infancy, though I had several other cases whose age was not much over this limit. During the same period of two years I performed a total of 37 mastoid operations, so that the infantile cases numbered nearly 38% of the total—an unusually large percentage.

During the two years preceding April 28th, 1908, I did not have any infantile cases, although there were almost as many cases of all ages. I can offer no good reason for this sudden occurrence of these infantile cases. We all know that infants are especially liable to middle ear disease on account of the shortness of the Eustachian tube, its relatively large lumen, and the low level at which its pharyngeal orifice stands, but why there should be so large an outbreak of secondary bone disease is hard to explain except on the supposition that these babies who developed the bone disease were lacking in resistance.

A careful bacteriological examination of the pus from the bone



was made in each case, with the result that streptococcus was found to be far the most common cause of the disease.

In ten cases streptococcus was found in pure culture. In one case streptococcus was found mixed with staphylococcus and proteus.

In one case staphylococcus aureus was found.

In one case there was no growth, and this was probably due to delay in getting the culture tube over to the laboratory.

As regards race—the children were all of foreign parentage, and all Jews.

They all had a swelling behind the auricle and in most cases an actual abscess. I performed the same operation in every case, namely, a free incision of the soft parts behind the ear so as to expose the bone thoroughly. After this had been done a carious spot was usually to be seen in the latter, generally at a point above the level of the bony meatus and quite a distance behind the latter. This carious opening (or spot in some cases) was enlarged with great care and the diseased bone removed by means of a curette. It was surprising to find the large area in which actual pus could be found in the bony cells. The disease in many cases followed the line of the petro squamous suture. Special care was taken not to go too low in order to avoid the semi-circular canals and facial nerve. It is, of course, extremely hard to orientate oneself in these operations where the parts are so small that the important structures are all very close together. Of course the object aimed at was to do as little as possible.

I am glad to say that all the cases recovered and none of them had any damage done to the facial nerve or labyrinth. Three turned up with a recurrence of the abscess and were again operated as before, except that adenoid vegetations were removed as well—all making good recoveries.

A point worth considering is as to whether these cases would recover if one simply incised the abscess. I think that some would, but that the process would be much slower and not nearly so safe.

I believe the reason that the mastoid was involved was due to the poor general condition of the patients, they being of the same class that gives us suppurating cervical glands and phlyctenular disease of the eye.

## ON THE CAUSATION AND EARLY DIAGNOSIS OF UTERINE CANCER.\*

BY DR. A. C. HENDRICK, M.A.

Demonstrator in Gynecology, University of Toronto; Assistant Surgeon,  
Department of Gynecology, Toronto General Hospital; Member of  
Associate Staff, Grace Hospital, Toronto.

Although this paper is intended to deal primarily with the early diagnosis of uterine cancer, still it is very important to survey briefly the prevalent ideas in regard to the causation of cancer in general, since, if one has some idea of the probable causation, one may be led the more reasonably to an early diagnosis of the condition.

First of all, we must realize that cancer is universal, all races of mankind and all vertebrates being liable to it.

Bashford states that the vegetarian castes of India are no more exempt than are those living on a mixed diet, though it has been stated that the Jews of East London become more liable to it after some years of living in England. Hence, the mode of living would seem to have little to do with the causation of the disease.

Again, the disease seems to have a predilection for certain regions of the body in different species, mammary cancer being common in the mouse, but rare in cattle.

Experimentally, there can be produced:

1. Local infiltration.
2. Systematic dissemination.
3. Terminal cachexia.

The transference is a true transplantation of living cells, infection taking no part. Hence, Ribbert's view of cancer is that it is a continuance of growth of cells which primarily were confined to a circumscribed area.

Age incidence: This has been shown to be the same for short-lived animals as for man.

Now, explanations of cancer must agree with:

1. That statistically, cancer is a function of age.
2. That biologically, cancer is a function of senescence, and, one may add, of immaturity.

The law of age incidence applies alike to individuals of a

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\*Read at the Canadian Medical Association, Toronto, 1910.

species and individual organs and tissues. For example, (2) cancer of the breast before puberty is practically unknown.

Senescence, constitutional or circumscribed, is an endogenous predisposing factor. It is closely associated with its origin, but it is not necessary to its continuance. That is, the origin and the growth of cancer are separate phenomena.

Cancer is more prevalent in domesticated animals, because, on account of good care, etc., they reach the cancer age.

Exogenous causes:

1. Chronic irritations have nothing in common except causing prolonged attempts at repair. Hence, tissues subjected to such conditions are really primarily old, so to speak, or perhaps immature in some cases, and so are liable to cancer if they have reached the cancer age. Many examples of this are known; for instance, radiant cancer, or actinic cancer of the lip from smoking a short pipe, or from X-rays.

Again, distinct innate relations seem to exist between cancer of the same organ in different species and the connective tissues. For example, in the human breast it is scirrhus, in a dog breast cartilage, in the mouse angioma.

It is important to bear in mind that cancer may:

1. Arise locally in a circumscribed area.
2. Any part of the normal covering of the body may acquire cancerous properties.
3. And that more than one focus of origin in a circumscribed area may exist, or have origin of different ages; that is, extension by apposition.

Hence, one may assume an acquired local or constitutional predisposition. That is, an indirect etiological significance to chronic irritation, causing anaphylaxis.

Again, as to the morphology of cancer, it is to be borne in mind that there is an immense variety of carcinoma cells, all descended from normal cells, some of which pass into one another, whilst others do not, and are able to maintain their characteristics for a considerable period. Hence, apparently benign growths become malignant; for example, adenoma. Also by transplanting cells from individual to individual, and so maintaining them in the continuous or intermittent state of regeneration, it seems possible to perpetuate varieties of cells more capable of growth. Hence the origin of sarcoma.

Again, there are normal types of cells which are the proto-types of malignant cells; for example:

1. Bladder epithelium and carcinoma.

2. Decidual cells and sarcoma.

3. The mucous membrane of the outer end of the Fallopian tube, and malignant adenoma. Also columnar epithelium may become squamous; for example, psoriasis of the endometrium, or squamous cells become columnar, due, perhaps, to metaplasia.

Growth of Cancer: Growth of cancer cells is different from embryonic cells.

1. The cancer cell shows cyclic changes in the degree of differentiation of its histological characters.

2. It disobeys all the laws of growth of embryonic tissue. That is, it has the habit of growth minus the habit of function.

3. When transplanted, the blood vessels and supporting connective tissue scaffolding are supplied anew by a reaction elicited by the chemiotactic influences of the parenchymatous cells.

4. Cancer cells are specialized re growth, and not undifferentiated cells.

5. The cancer cell has no analogy with any known form of infective disease.

Continued growth takes place after inoculation of living cells into animals of the same species.

The metabolism of the cancer is a property of itself; that is, a *vita propria*, the propagated tumor having much the same relation of the fetus to the mother. That is:

1. There would seem to be no toxic properties injurious to the host.

2. No disturbance in the cell metabolism.

Cyclical changes in cancer cells are shown by:

1. Rapid or slow growth.

2. Transitory cessation of growth.

3. Greater or less spontaneous immunization.

4. Variation in histological structure; for example, alveolar to acinous, and vice versa.

But we must remember the dosage and the soil are important factors.

*Heredity*.—Darwinism hardly applies here. That is, acquired cancer, etc., except, perhaps, in cases of metaplasia.

Weismann's theory that germ plasma is continuous from generation to generation, and that these germ cells have a potentiality of variation dependent upon environment. That is, oscillation in the nutrition of somatic cells may influence or cause variation in germ matter. Therefore there is heredity in disease, or, as Garrod, in his Croonian Lectures in 1908, states it: "Inborn errors of metabolism"; and since metabolism depends upon cellular enzymes,



so, in cancer, perhaps there is some innate error of metabolism, forming or altering the cellular enzymes, so causing increased tendency to cell proliferation, the actual growth activity being due to some accidental irritation.

It cannot be doubted but the processes of the body are largely influenced by heredity. For example, the endogenous toxins, diabetes, baldness, or the abiotrophy of Gowers.

The Mendelian Law would seem to be applicable to such a disease as cancer, which has not yet been shown to be due to infection, as is, for example, tuberculosis.

By the Mendelian Law one means the law of segregation, the germ cells being a single structure and the animal a double structure, having received a series of elements from its father and a series also from its mother.

*The Mendelian Observation.*—When dissimilars meet in one individual, there is, on formation of the germ cells, a separation between the two characters which come in. That is, the dominant and the recessive. The animal is a combination of many natures. For example, height, color, form, and so on, separately transmitted. For example, in eye color, the presence of pigment is dominant. Color blindness and other deformities follow the law, so special resistance or special liability might follow the law; for example, resistance due to presence of something, as in color blindness, and liability to the absence or recessive qualities, as, for example, in alkaptonuria. So, with sex-limited diseases, as hemophylia.

Hence, as to causation, one may sum up:

1. No limitations as to species.
2. Diet and mode of living has little influence in causation.
3. Cancer is statistically a function of age of the individual.
4. Cancer is biologically a function of either immaturity or senescence, either constitutional or acquired: for example, immaturity when, owing to limitations of function, the growth habit alone is differentiated, the cell becoming purely vegetative, due perhaps also to some error of its metabolism. Then its faulty metabolism causes enzymes, which may cause adjacent cells to take on this vegetative habit, etc., due to chemiotactic influence; so one sees the different reactions of the surrounding tissues or stroma developed.

Or again, in repeated attempts at repair, the cells specialize the growth habit, and so become more strongly vegetative and unspecialized as to function; for example, metaplasia and anaplasia takes place, and so one finds abnormal new growths; for example,

squamous cell epithelium arising from columnar cells, as in the uterus, gall bladder, etc.

Again, the normal intercellular antagonism of the body seems not to hold for the anaplastic cells—that is, the vegetative or rapidly proliferating cells—hence, metastatic growths are possible; for example, the mother cells of the thyroid to bone, causing adenoma.

5. The origin and the growth are separate.
6. Exogenous causes, that is, chronic irritations, are important predisposing agents.
7. Cancer may arise locally anywhere.
8. There may be more than one focus of origin in a circumscribed area.
9. The histology of cancer cells varies within wide limits.
10. Cancer cells are specialized cells.
11. Heredity certainly plays a part in the predisposition to cancer.

#### THE EARLY DIAGNOSIS OF UTERINE CANCER.

The early diagnosis of cancer of the uterus is one of the most important functions of the family physician, for it is to him the patient usually appeals for relief; hence it is his bounden duty, by every means available, to make the diagnosis if possible. There are three sites for uterine cancer:

1. The vaginal portion, from the vaginal vault to external os.
2. The cervical portion, from the external to the internal os.
3. The uterine body, from the internal os to the tubal orifices.

Now, cancer of the uterus develops in its mucous membrane, or immediately under the mucous membrane or its elements, that is, the glands of the cervix or the body. This classification is important because, not only the clinical picture of the cancer, but the methods of diagnosis, are quite different, depending on the starting point and extension of the disease.

There are certain symptoms which one may designate by the name of prodromes of uterine cancer. These are:

1. Bleeding in coitus—due either to engorgement or friction. It is very common and often the first symptom noted in cancer of the cervix, though it may occur in vascular erosion, endometritis, or polyps. It is always a suspicious sign.

2. Metrorrhagia, after the menopause; that is, some months after the menopause. This symptom may occur in fibroids and polypoid disease, but it is most often due to cancer. Irregular hemorrhages before the menopause are not so suspicious, but we must bear in mind the age incidence.

3. A sero-sanguinous discharge, resembling greasy dish water or beef brine, occurs in the early stages of cancer of the cervix, and is rare in other conditions. This modified cervical discharge is characteristic.

#### CLINICAL DIAGNOSIS.

The clinical diagnosis of uterine cancers depends upon two factors:

1. The presence of a neoplasm, either proliferation or infiltration.

2. Its degeneration. This leads to the characteristic friability of the tissue, which is of great diagnostic value. This friability is recognized by the finger or the sound. This property of breaking up into small pieces under pressure of the finger is very characteristic, and the only other tissue, perhaps, showing it is a necrosing fibroid.

The great tendency to bleed is understood when one recalls the histological structure. Hence, bleeding is characteristic of all three varieties of uterine cancer. But one finds hemorrhages in erosions, endometritis, chronic metritis, and polyps although less, so that diagnosis cannot be based on bleeding alone. When both features of cancer are present, namely neoplasm and degeneration, the diagnosis is easy; but if only one of these is present, difficulty arises. For example, there may be only proliferation; then inspection with a speculum aids; while any infiltration is found on palpation, whilst degeneration is found by both methods.

Cancer of the vaginal portion may be seen and felt through the speculum in the Sims posture, whilst palpation of body cancer may require dilatation.

#### VAGINAL PORTION.

Cancer here is the most easily diagnosed of all sites.

1. If of the polypoid variety, its surface is reddish in color and friable, that is, easily broken or crumbled down by finger or sound.

2. If of the flat kind, any bulging above the surface is suspicious.

3. If of the infiltrating kind, a nodule is felt cartilaginous in consistence and altering the shape of the vaginal portion. If, however, the mucous membrane over the lump is intact, then there is trouble, though the surface of the nodule may be purple in color and spotted by yellow pits due to the cancer nests.

4. Ulcerating cancers are easily spotted. The jagged fissures, with soapy secretion, or reddish in color, with moderate induration, are quite characteristic, but often the microscope has to decide.

## DIFFERENTIAL DIAGNOSIS.

The polypoid variety from:

1. Papillary tuberculosis may be made by careful inspection, finding the millet seed nodules or tubercle in the neighborhood; for example, the tubes, peritoneum, or a focus in other organs.

2. From mucous polyps. Inspection shows the surface mucous membrane intact, and the sound, that they originate in the cervix.

3. Cervical fibroid, with the pedicle, is distinguished by its intact mucous membrane and non-friability, unless gangrenous.

4. Follicular hypertrophy of the vaginal surface. Here the surface is not rough; the tumor is not friable, and it is covered by intact mucous membrane, through which the follicles may be seen.

5. Condylomata aluminata. Here there is only a papillary surface, with thick epithelium, no ulceration or infiltration. The color is a whitish red. Further condylomata may be found also in the vagina or vulva.

## INFILTRATING VARIETY.

The differential diagnosis from:

1. Inflammatory infections—metritis colli; but inflammation usually affects the whole vaginal portion uniformly. The consistency is not so hard; the mucous membrane is intact, and follicles are seen. For example, in a case in hospital the microscope decided.

## FLAT CANCEROUS ULCERATIONS.

Flat cancerous ulcerations have to be distinguished from:

1. Erosions, if developed upon a hard inflammatory base, or associated with ectropion, or the surface becomes rough on account of thick papillary erosions. Inspection decides: an erosion surrounds the external os evenly, and has a glistening, shiny appearance and bright red color, as it is covered by columnar epithelium, whilst a cancer is duller in color and rougher, even if ulceration is quite superficial. The erosion has no sharp border, but merges gradually into the squamous epithelium of the vaginal portion, outline irregular, and pits or follicular ulcers are often seen on the surface. But if the erosion has lost its epithelium the microscope decides.

2. Simple Ulcers, due to a prolapse or a pessary or cauterization or croupas processes, lack induration, and at the borders healing is often seen.



3. A tubercular ulcer is similar to cancer, but is very rare. It surrounds the external os. Its edges are undermined; the floor is granular, but not indurated; yellow miliary tubercles may be seen. Also, the disease is found elsewhere, or the microscope shows a tubercle structure.

4. Chaneroids (soft sore) are usually small sores, becoming larger by confluence; have elevated borders; the floor has a croupous membrane, but is not indurated. Ulcers are multiple, and contact ulcers are found; also, ulcers on the vagina or vulva.

5. Syphilitic Ulcers:

(a) Initial lesion.

(b) Degenerative papule.

(c) Gumma.

Degenerative papule is a solitary indurated and shallow ulcer, with indistinct border and dirty copper red color, with greasy exudate on its floor. The anterior lip is the favorite site.

6. Condylomata lata, or papulous ulcers, are elevated slightly and covered by a yellowish debris. They are multiple, and other papules may be found on the vulva.

7. Gummata are rare. The ulcers are elliptical, well-defined, shallow, and the floor covered by a pus-like exudate, which, on separation, leaves bleeding granulations. It is situated usually to one side of the external os, and extends by serpiginous border. One may demonstrate the lesion elsewhere; also, the Wasserman reaction, or the presence of spirochaete may be shown.

#### DIAGNOSIS OF CERVICAL CANCER.

This is more difficult, especially if the os is closed, but otherwise when the os is patulous. Then ulceration, the absence of epithelium, and especially friability on scraping with the curette is diagnostic.

#### INFILTRATING CANCER.

1. Here diagnosis depends on change in shape of the cervix and its consistency. The surface becomes distended on one side, perhaps, and the canal displaced. Its consistency is cartilaginous. If infiltration is high up in the cervix, a rectal examination may help; but the best plan is to remove a piece of tissue with the curette and examine histologically, or even to curette the body as well as the cervix, and vice versa.

## DIFFERENTIAL DIAGNOSIS.

1. Metritis or endocervitis, but here the condition is uniform and the mucous membrane is intact.

2. Follicular hypertrophy, but here the mucous membrane is intact, and the follicles shining through may be punctured.

3. Interstitial myomata are more rounded; that is, better outlined and surrounded by soft tissue, while cancer, owing to inflammatory reaction, is not. Ulceration favors cancer.

4. Chronic cervical catarrh, in old females. Here the mucous membrane feels rough, uneven and nodular, owing to the granular depression and the surrounding fibrosis, but the mucous membrane is intact, and the curette gets no tissue. The microscope decides.

## CANCER OF THE UTERINE BODY.

Cancer occurs here about one-fifteenth as often as in the cervix, but is very important to diagnose, since most corporeal cancers arise after the menopause. Hence, there are two important signs:

1. Hemorrhages.

2. Simpson's pains, regular labor-like pains, lasting several hours and recurring at definite times of the day.

But there are no characteristic bi-manual palpatory findings in cancer of the body. The size of the uterus may be normal, or even atrophic. Later, it may resemble a fibroid or metritic uterus. Diagnosis is made by exploring the cavity.

1. By the sound, which distinguishes from retained decidua, or fungus endometritis, by presence of hard nodules or depressions, when cancer is present. If the interior seems smooth, cancer may be excluded; but if there are irregularities of the surface, the microscope is necessary. The microscope is the proper method of diagnosing early cancer of the body. Digital exploration may be employed if the os is open, plus curettage, but if the cervix is closed, curettage is employed, and if negative digital exploration is then used, but the latter is more dangerous, besides palpation is not so sure as the microscope.

## DIFFERENTIAL DIAGNOSIS.

If the curette is used, the microscope decides; if a digital exploration, then one has to distinguish from:

1. Adenomyoma.

2. Sarcoma.

3. Degenerating fibroid.

4. Mucous polyps.

5. Remains of abortions.

6. Chronic metritis.

But cancer is distinguished by the two signs of neoplasm and degeneration.

Although corporeal cancer occurs only about one-fifteenth as often as the other varieties, still it is more insidious in its mode of onset. It is more frequent in spinsters and barren wives than in multipara. This corresponds with the clinical experience that it is frequently associated with fibroids, and fibroids are a result of the barren or the celibate state. It is interesting to note that cancer of the body of the uterus has been found to follow double ovariectomy, and since this is practised occasionally for bleeding fibroids near the menopause it is worth remembering.

Again, sub-mucous fibroids are often associated with changes in the endometrium, which not only cause excessive bleeding, but set up also inflammatory conditions, giving rise to salpingitis, leucorrhea, etc., but may also render the mucous membrane more susceptible to cancer.

Bland-Sutton (Burghard's System of Surgery, Vol. 4, p. 52) states that in patients submitted to hysterectomy for fibroids, over the age of fifty years, about ten per cent. will be found to have cancer of the corporeal endometrium.

Hence, one may sum up the early diagnosis of uterine cancer by stating that:

1. The family history is important in discovering a predisposition.

2. The personal history is important in deciding a predisposition. For example, cervical cancer is almost exclusively a disease of women who have borne children, or at least have been pregnant. Hence, there seems good reason to suppose that injuries and their sequelæ are predisposing factors. Again, corporeal cancer is chiefly the disease of spinsters and barren wives, and these are the patients who suffer from endometritis and fibroids.

3. Chronic irritations are important etiological factors, for example, lacerations in multipara, fibroids and endometritis in nullipara.

4. The warnings, or prodromes, are: (1) The red flag of metrorrhagia after the menopause, and the Simpson pains in corporeal cancer.

2. The unusual discharge in cervical cancer.

3. The bleeding after coitus in the vaginal variety.

Since being forewarned is forearmed, the way to get an early diagnosis is:

1. To educate women as far as possible to regard any unusual hemorrhage or discharge after the menopause, or even before it, as a danger signal.

2. To submit all patients consulting one for these symptoms to a most careful examination.

3. To never temporize or delay, but, if necessary, to have an expert in consultation; or, if impossible, at least to use every available means to arrive at a diagnosis, and among these is a careful histologic examination of the curettage, or a piece of the suspicious growth, for after all the microscope is the supreme test in many of these cases.

(1)—The *Lancet*, Vol. II., 1909, p. 691.

(2)—Bergmann, *System of Surgery*, Vol. II., p. 592

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**Digalen**—Speaking first of the disadvantages of digitalis, on account of its secondary effect, Worth Hale, Washington, D.C. (*Journal A. M. A.*, January 1), takes up the claims of digalen, introduced by Cloetta in 1904, as doing away with these defects. He reviews the literature on the subject, and gives the results of biologic experiments made by himself on frogs, which led him to the following conclusions: "Digalen is not a uniformly stable preparation, as shown by the gross appearance of Sample 1, and by biologic tests of the five different samples. Biologic tests also indicate that digalen is relatively much less potent than corresponding amounts of crystalline digitoxin, but that it is of about the same activity as digitalein. The experience of clinicians indicates that digalen is much less effective than is claimed, and that the secondary action of the digitalis group appears equally often after its use as with the older and cheaper galenicals. Its use in cases of acute heart failure, whether by intramuscular or intravenous injection, seems open to serious objection on account of the pain, and danger of thrombosis, and it would apparently be better practice in such cases to use either strophanthin, given intramuscularly, or one of the preparations of the suprarenal glands by intravenous injection."



## Medicine

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GRAHAM CHAMBERS, R. J. DWYER, GOLDWIN HOWLAND,  
GEO. W. ROSS, WM. D. YOUNG.

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### **The Cure of Early Paresis.** CHARLES L. DANA, M.D. *J. A. M. A.*

Dana cites a favorite proposition and lays down cases to prove his contention.

Syphilitic and parasyphilitic affections are, as we know, both due to the same cause.

Frequently brain diseases, syphilitic or parasyphilitic (a paresis) cannot be distinguished clinically early in their course, as they are often very similar in symptoms.

Therefore Dana denies the necessity for claiming a cured case to have been pseudo-paresis, but all parasyphilis was originally due to syphilitic pathological conditions. By careful treatment, many cases of paresis may be cured or assisted.

This is a remarkable theory, and the alienists will oppose it, but then clinical cases are nearly always advanced. Treat your cases, and be hopeful.

G. W. H.

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### **Traumatic Neuroses from a Medical Point of View.** By ARCHIBALD CHURCH, M.D., CHICAGO, ILL., *Cleveland Medical Journal*, April, 1910.

The classification of the traumatic neuroses to-day is traumatic neurasthenia, hysteria, hysterio-neurasthenia, epilepsy and insanity. The litigation psychoses are combination of all of these.

Traumatic neurasthenia includes the symptom complex of neurasthenia with a traumatic etiology, and cerebroasthenia is merely the cerebral equivalent. Hysteria and hysterio-neurasthenia bear the same relation to traumatic causation as to any other cause.

Epilepsy and insanity are comparatively infrequent as a result of trauma.

Litigation psychosis includes symptoms of self-concentration, vindictiveness, moroseness, "they must pay for it" ideas, hopelessness and associated signs of the other neuroses.

G. W. H.

**Syphilitic Diseases of the Nervous System.** JOSEPH COLLINS.  
M.D. *Journal A. M. Assn.*

Collins' article needs only its conclusion emphasized: Syphilitic diseases of the nervous system are largely, if not wholly, due to imperfect treatment by mercurials. Iodides are too largely depended on, and pill treatment, even to ptyalism, does not prove saturation. The only safe test is the Wasserman, and it should be repeated at five-yearly intervals after the negative reaction presupposes cure.

G. W. H.

**Latent and Active Neurasthenia in Its Relation to Surgery.**  
STUART MCGUIRE, M.D., RICHMOND, VA., *J. A. M. A.*

McGuire discusses the relationships of functional nerve diseases to operative procedure, and concludes as follows: Hysterical cases are troublesome before, but successful after; neurasthenics are debatable; hypochondriacs are non-operable. In neurasthenia the occasion for operation must be definite organic disease, not a sore brain. The organic disease may cause the neurasthenia, and if so must be removed. Apprehension and nervous signs must be quieted off by long treatment before operation, as psychic shock is greater than traumatic shock, while, finally, prolonged post-operative care is necessary.

G. W. H.

**Meningitis and Conditions Simulating Meningitis.** By FRANK  
SHERMAN MEARA. *Archives of Pediatrics.*

Meara publishes an excellent paper, summarized as follows. Tuberculous meningitis in infancy is usually insidious, but may be acute. Its onset is characterized by irritability and listlessness, headache, vomiting and stupor, but the first and last of these may be the sole signs. The cardinal symptoms are apathy, tremor, irregular respiration, ocular palsies, while less frequent are the slow, irregular pulse, stiff neck, opisthotonos, Kernig, tache, and convulsions. The temperature is low, with marked excursions. Older children present more typically the disease in adults, the rarer symptoms mentioned occurring much more frequently. But most characteristic is the spinal fluid, which is clear, under pressure, forms a web on standing, containing TB. bacilli, has a raised albumen count, and shows a lymphocyte count up to 1,000 per cu. mm. The blood count is frequently high in leucocytes, 38,000 being reported in one case.

In epidemic meningitis, due to the diplococcus, we have an epidemic disease of acute onset, and similarly also in infections by other germs, as the pneumococcus, streptococcus, etc., which produce meningitis usually secondary to other foci. To distinguish these from tubercular disease of the meninges, we must depend mainly on the lumbar fluid, which is cloudy or purulent, with polymorphonuclear excess in high percentage, and a bacteriological examination will differentiate the germ.

In meningismus and serous meningitis, while the typical signs of a meningitis may appear, yet the spinal fluid is clear, devoid of TB. bacilli, and no rise in cell count of either lymphocytic or polymorphonuclear origin. Rare conditions to be guarded against, but having signs of their own apart from spinal puncture, are the meningitis associated with anterior poliomyelitis, and the infections in jugular thrombosis, and colon disease in other viscera.

In this same journal, Ayer and Avery report a case of influenza meningitis, stating that only 24 have to date been collected, proven by culture. The course of the disease lasted over a month, the earlier signs being of mixed abdominal and meningeal types. Four days later the meningitis was marked (the dates in this paper appear to be incorrect.—G.W.H.), and cloudy fluid was withdrawn by puncture. A little over a month later death is stated to have occurred (?). Autopsy showed purulent meningitis; bacteriological examination, influenza bacillus.

G. W. H.

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**Experimental Poliomyelitis.** By SIMON FLEXNER, M.D. N. Y.  
*State Jour. of Med.*

Poliomyelitis is due to a very small germ, since it passes the finest filters like the germ of yellow fever. It probably enters by the nose, and thence to the brain. It is communicable from one to another, and there probably are carriers. It is resistant to cold and drying, like rabies.

It has an incubation period of 4 to 33 days, and a period of onset of 1 hour to 40 hours, and it produces a diffuse encephalitis and myelitis, and not a poliomyelitis purely.

G. W. H.

## Obstetrics

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CHAS. J. C. O. HASTINGS, ARTHUR C. HENDRICK.

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### **The Bohemian Pygopagous Twins.** — (Editorial) — *New York Medical Journal.*

On January 20, 1878, there were born in Skreychov, Bohemia, the united twins, Rosa and Josepha Blazek. The mother, a secundipara of twenty-two years, who had, two years previously, given birth to a healthy, well-developed girl, was delivered of the twins by a midwife without any difficulty. Six months later, Dr. August Breisky, professor of gynecology in the German University of Prague, visited the twins and found them well developed. They were joined in the gluteal region. They had a common anus and a common vulva, but the two trunks, the organs of the pelvis, and the lower extremities were separate. In 1891 the twins were exhibited in Paris. Mr. Marcel Bandonin gave at that time a good description of the girls, then thirteen years of age, in the *Semaine Médicale* for July 8, 1891.

Their trunks were not parallel, as the spinal columns formed the letter V, each leaning to the opposite side at about 45°; each head was somewhat inclined to the inner side. The union of the two trunks took place posteriorly by the sacrum, which was common to both girls, and by separate iliac bones. The sisters were accustomed to lie on one side, Rosa on the left and Josepha on the right. When thus examined, only superficially, the twins seemed to possess only one urethra, one vulva, and one anus. There was, indeed, only one urethral orifice from which the urine could be seen to flow out. A sound was not introduced, but they must have had two different bladders, as their desire to urinate did not appear at the same time. Immediately in front of the urethra, in the median line anterioposteriorly, was a well-developed single clitoris, from which, on each side, toward the back could be seen rudimentary labia minora, while the whole was protected by a large, nearly oval "collerette" representing two labia majora, which thus formed a single vulva. But into this vulva, and this is important, discharged two vaginae joined together like the barrels of a double-barreled gun, entirely separated by a complete partition, and each possessing a hymen running crosswise. Between the vulva and



anus was a slender but well-developed perineum. The rectum must have been common up to a certain distance, as the desire to defecate was simultaneous, but, without question, there existed two large intestines. The twins possessed two entirely different characters, and lived independently of each other, as far as such a condition was possible; that is, while one might be asleep the other might be awake. They did not have the same tastes; one liked beer, the other wine; one was fond of salads, the other detested them; the heart beat differently and the radial pulses were not synchronous, etc. But this physiological examination was difficult, as the girls spoke only Czech, and Dr. Baudouin had to depend upon the translations of the manager.

So far Marcel Baudouin's report, published in 1891. The twins did not figure again in the medical journals, and many a reader of the description may have forgotten their existence, although they seem to have been exhibited to the public all the time, until there appeared in the same French paper, the *Semaine Médicale* for May 18, 1910, nineteen years later, the report that one of the twins, Rosa, had given birth to a healthy boy. Dr. C. Trunecek, of Prague, makes this statement in the French journal, while Dr. Basch, of Prague, reports the case in the *Deutsche medizinische Wochenschrift*. It seems that the sisters had retired to Prague and were living an uneventful life. Rosa became troubled with an abdominal swelling, and on April 15, 1910, they went to the surgical department of the General Hospital for advice. An examination followed, and when pregnancy was suggested the answers were "catégoriquement négatives." Dr. Pitha, professor of gynecology in the Bohemian University, was asked to make an examination, but before he could do so Rosa was, on April 17th, delivered of a healthy boy by a midwife. The father of the infant seems to have been the manager of the twins. We shall give here a condensed review of Dr. Trunecek's report:

When Professor Pitha examined the twins, on April 29th, the twelfth day after the delivery, he found that the twins were united posteriorly by the sacrum and the iliac bones. Only a few accurate measurements could be taken. The mammary glands were developed in both, and all four breasts secreted milk. The abdominal wall of Rosa was distended and showed lineæ albicantes, while this was not the case in Josepha. Usually the twins were lying on one side, Rosa on the left, Josepha on the right. In this position, when the legs were flexed upon the thighs and the thighs upon the pelvis, the view of the genital organs and anus was very good. The urethra was common only for a distance of three centimetres, when

it divided into two channels, each with a separate sphincter, leading to two bladders. The rectum bifurcated about five centimetres above the anus. The entrance to Josepha's vagina was much narrower than Rosa's on account of the accouchement. In Rosa the entrance to the vagina and the vagina itself were much dilated. Both vaginæ were well developed, but short. The septum separating them was much torn, and Josepha had suffered lacerations of the posterior wall of the vagina. The rugæ in Josepha's vagina were well marked, but nearly obliterated in Rosa's organ. Rosa's uterus was as large as one's fist, discharging bloody lochia, while Josepha's uterus was small, anteflexed, and of normal size. Rosa used her right foot in walking, the left leg being shorter, while Josepha used the left foot, the great toe of the right foot only touching the ground.

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**Treatment of Placenta Prævia.** By FREDERIC FENTON, M.D.,  
Toronto. *The Canadian Practitioner and Review.*

The writer enumerates four procedures for the treatment of placenta prævia, viz.:

1. Rupture of membranes, followed by vaginal packing.
2. Braxton Hicks' method.
3. Hydrostatic dilators, plus forceps; or version, with immediate extraction.
4. Cæsarian section.

The first is limited to emergencies; the second the writer advocates when the child is dead, or not viable, and the third method when the child is living and viable.

The fourth method, viz., Cæsarian section for placenta prævia, has a strong advocate in the writer of the article, and he reports two successful cases.

The first was in a multipara, advanced to the seventh month. One month previous to operation, the patient was admitted to hospital in an almost moribund state. The H.C. was 15%, and the R.B.C. 1,000,000. It was determined to wait until a recurrence of bleeding, and then to terminate pregnancy either by Hicks' method or Cæsarian section, if the child reached the viable stage. There was no further hemorrhage for almost one month, so the child was nearing the seventh month, and viable, so section was done. The baby was delivered alive, but died in a few hours. The mother made a good recovery.

The second case was a III. para, had suffered two severe

hemorrhages before admission, and was having some oozing almost continuously. She was a little over eight months, and in good condition. To save the baby, the mother consented to Cæsarian section, which was done, both making good recoveries, and leaving hospital in three weeks.

The points to be learned from the reports of these two successful cases are:

1. Cæsarian section should only be undertaken in hospital.
2. Cæsarian section during the early stages of the symptoms is hardly justifiable, as the child is seldom saved.
3. Cæsarian section is really only justifiable when the pregnancy is well advanced, say the eighth month or more, and where there has been very little previous interference, such as vaginal examinations, tamponing, etc., or any severe recent hemorrhage. This narrows the number of cases of central placenta prævia suitable for Cæsarian section to a very small percentage indeed.

The treatment best suited for the majority of cases seems to me to be, as Herman states, early turning, slow extraction, anti-septics.

A. C. H.

## Ophthalmology

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D. N. MACLENNAN, W. H. LOWRY.

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**Sedatives in Ophthalmic Surgery.** JOHN HENRY OBLY, M.D.,  
Brooklyn, in *American Medicine*.

The paper is entitled "Remarks on the Need of Sedative Treatment in Ophthalmic Surgery." He points out the fear, anxiety and severe strain upon the nervous system of patients who require operations upon the eyes, before, during and after the operation. He speaks of the ordeal a patient goes through for the first 24 or 48 hours after operation with both eyes bandaged, and attempting to lie quietly on the back, which sometimes progresses into uncontrollable restlessness, raving and even dementia. To overcome these nervous manifestations he advocates the use of nerve sedatives and mild hypnotics to help the patient through this trying period. He uses bromides alone or with chloral or with the valerianates. He speaks of a preparation called bromural in 5-gr. doses every four hours, with a 10-gr. dose at night, for four or five days before an intraocular operation, and for a few days afterwards. In cases where this is ineffectual he uses trional or veronal in 10 to 20-gr. doses.

W. H. L.



## Rhinology, Laryngology and Otology

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GEOFFREY BOYD, GILBERT ROYCE.

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### **Tonsil Removal. A New Method and Instruments.** ERNEST V. HUBBARD, M.D., New York. *New York Medical Journal*.

In this paper the author questions the wisdom of so considerable a procedure as dissection of the entire tonsil and its capsule as advocated by some. Its dangers, those of prolonged operation, of hemorrhage and of subsequent cellulitis need not be invited. The electrocautery designed to diminish hemorrhage often fails of its purpose. The tonsillotome is usually inadequate and often powerless, even with the aid of counterpressure and a tenaculum. The various cold wire snares remain properly used and in expert hands they are now the first choice for our purpose. The laparotomy position of the patient he considers the best, as the upright position only adds to the strain on the heart.

G. R.

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### **The Sudmucous Resection of the Nasal Septum.** OTTO T. FREER, M.D., Chicago. *Journal A. M. A.*

In the writer's experience perforations of the membrane are oftenest made during the denudation of the bony part of the septum after the removal of the cartilaginous portion. This bony crest, which is composed of the incisor crest, the anterior end of the vomer and superior maxillary crest, often bends over into the nares of the convexity in varying degree. The periosteum covering the ridge is firm, vascular and envelops its upper border, crossing over it into the other nostril. It is, therefore, distinct from the perichondrial envelope of the cartilage of the sputum, merely blending with it. For this reason after the removal of the cartilaginous deflection the upper border of the ridge is not seen as bare bone, being covered with periosteum.

He describes a special instrument for separating the periosteum of the ridge.

G. R.

**The Correction of Depressed and Irregular Deformities of the Nose by Mechanical Replacement.** WILLIAM W. CARTER, M.D.,  
New York. *Journal A. M. A.*, Dec. 4, 1909.

In this paper the writer expresses the view that it is his belief, after an experience of over 300 submucous resections of the septum, that in the adult the septum as a vertical support takes no part in the preservation of the nasal arch. The upper edge of septum, however, which is wedged in between the lateral cartilages, is one of the segments of the arch and performs the important function of the keystone, and its displacement means the destruction of the arch.

The custom prevalent, especially among general surgeons, of placing straps of adhesive plaster across the nose and splints within the nasal cavities in cases of recent fractures is to be condemned as flattening is increased by the pressure of the straps, and the nasal chambers are broadened by the splints. Both influences tend to produce a flat nose. He proceeds to describe a special bridge and intranasal splint for the correction of depressed deformities.

G. R.

## Anesthetics

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SAMUEL JOHNSTON, M.A., M.D.

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**Jonnesco's Analgesia Method.** By JOHN J. MOORHEAD, M.D., Instructor in Surgery, Post-Graduate Medical School and Hospital, etc., New York.

Dr. Moorhead has an article with the above title in the *Journal A. M. A.* of January 22nd, 1910, a synopsis being given below.

Jonnesco, it appears, first read his article before the International Society of Surgery in Brussels, September, 1908, when he reported fourteen cases by a new method of general spinal analgesia by the addition of strychnine to stovaine.

Professors Bier, of Berlin, and Rehn, of Frankfort, at the same meeting declared there was considerable danger in injections higher than the lumbar region. Jonnesco said he expected opposition to so novel and hardy a method, but he requested that his critics do not condemn it on preconceived grounds, as he was sure that within a short time it would be universally accepted.

The article explains the method of preparing strychnine sulphate and stovaine, with dosage according to age and physique. He advocates two spinal zones for injection, a "superior" between the first and second dorsal vertebrae, and an "inferior" between the twelfth dorsal and first lumbar vertebrae.

The first produces analgesia of upper parts of the body, face and neck, while the second permits of operation on all parts below the waist line.

His total number of cases recorded by this method is 412, 117 high and 295 low.

He says after-effects were notably absent, nausea in 2.25 per cent., vomiting in 1.25 per cent., sweating in 2 per cent., headache in 6.25 per cent., transitory retention of urine in 4.5 per cent. Post-operative temperature did not reach 104, and he never saw any paralysis.

The analgesia in high injections lasted about 45 minutes, and in the low from 1½ to 2 hours. He gives a second injection if the operation is not completed before sensation returns.

He claims that when he failed to produce analgesia was either

when he failed to enter the arachnoid space in the mid-line, or because the patient moved when he felt the needle, thus deflecting it.

*Analysis of an unfavorable case.*—Jonnesco in a letter explains the unfavorable outcome of the high injection case at the Post-Graduate Hospital, stating that the patient was an epileptic and had a bad heart lesion.

This fit lasted throughout the operation, which explained the momentary cessation of respiration, but not of the heart, and a few minutes of artificial respiration brought him around again. Delirium also occurred afterwards, but he could not understand that anyone could attribute to the anesthetic what was merely an epileptic delirium.

Jonnesco's statements with regard to this case are in marked contrast to the report given by Dr. Aspinall Judd, who assisted Dr. Robert T. Morris at the operation.

Dr. Judd does not mention an epileptic fit which began at the time of the operation, nor did Dr. Moorhead, who was present, witness any such fit.

With regard to the "momentary cessation of respiration," it appears from Dr. Judd's report that the operation (removal of osteoma of left frontal region) lasted twelve minutes, and that respiration thereafter was very seriously interfered with, and that it required heroic treatment for twelve minutes before respiration was re-established.

Those who observed the patient after he left the operating table would hardly agree with Jonnesco in terming the case one of "momentary cessation of respiration," nor would he have any supporter in his statement that ". . . a few minutes of artificial respiration was enough to bring him around again. . . ." This patient had a wild delirium an hour after, requiring a strait-jacket for two hours, the delirium occurring at intervals until the following morning. Jonnesco says that this was an epileptic delirium and ". . . cannot understand how anyone can think it was produced by the anesthetic. The consensus of opinion respecting this case was that the high injection was exceedingly dangerous, and that the analgesia was far from complete, and was responsible for the almost fatal collapse of the patient."

Jonnesco's method of high spinal analgesia has been unanimously condemned by all observers, their opinion being well-founded that four out of the seven cases of high spinal analgesia resulted unfavorably. One of these was the Post-Graduate case mentioned above, another at New York (superficial chest operation) caused so much pain that the patient asked for chloroform; in a third case



Jonnesco was unable to obtain cerebro-spinal fluid after repeated trials, but did succeed in withdrawing blood; ether was finally given. In a fourth, reported by Dr. Edward Martin of Philadelphia (amputation of the breast), it appears that the patient "narrowly escaped death. . . . Later ether had to be given to control the pain. . . . " Incidentally Dr. Martin states that there has been one death and one case of partial paralysis in his city following spinal analgesia by imitators of Jonnesco. With regard to lumbar analgesia, there is some division of opinion between those who would not use it at all and those who would use it when inhalation or local anesthesia was contraindicated.

Dr. Moorhead sums up the dangers as follows:

1. Danger of interference with a highly organized section of the nervous system, considering the possibility of (*a*) puncture of blood vessels, leading to (*b*) spinal hemorrhage and areas of (*c*) spinal sclerosis, or (*d*) syringomyelia later.

2. Uncertainty of reaching the arachnoid space, and hence failure of analgesia.

3. Psychic shock incident to operations where patients are conscious and appreciative of the sights and sounds occasioned by the occurrence.

4. The advantages do not outweigh the dangers, known and unknown, in a yet insufficiently tried radical departure from older methods.

S. J.

## THERAPEUTIC TIPS

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**Gastric Ulcer.**—In hemorrhage from gastric ulcers, Carnot recommends the following:

Gelatine .....	2.0 gm.
Acid. salicylici .....	0.25 gm.
Aquae coctae .....	100.0 gm.

Give of this mixture one tablespoonful two or three times a day; in severe hemorrhages, a dose every hour.

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**Internal Hemorrhages.**—Heddaens says gelatine is the best hemostatic in severe hemorrhages, where the source of the bleeding cannot be reached. The smallest quantity that should be used, he states, is 30 grn. L. Grüneberg reports prompt action from gelatine injections in the hemorrhage diathesis of the new-born. For intestinal hemorrhage due to typhoid, K. Witthauer has obtained brilliant results from gelatine injections.

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**Furunculosis.**—Bowen advises to keep the skin, as far as possible, sterile by washing with warm water and soap night and morning; then, when dried, applying a saturated solution of boric acid in water. The skin is then allowed to dry without wiping, and the individual furuncles dressed with the following ointment, spread on cotton or linen: Boric acid, precipitated sulphur, of each one drachm; earbolized petrolatum one ounce.

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**Constipation.**—Schmidt, of Halle, and Martinet recommend agar-agar in the treatment of constipation. Slow passage of faeces is due to diminished stimulus and peristalsis, through reduced bulk. Agar-agar absorbs sixteen times its weight of water, and so increases bulk. Cascara is added to the agar-agar, and the substance is on the market as regulin. A tablespoonful is given at one meal each day, freshly mixed with stewed fruits or vegetables. As it is slow in action it should be continued some time. The bowels are taught to become regular.

**Hay Fever.**—Dunbar, of Hamburg, produced an antitoxin which is said to come nearer being a cure for hay fever than anything else. But the prevailing form of hay fever in Europe is of the vernal form. An antitoxin for the autumnal, or American, form is yet to be discovered. Probably the best relief is secured by the application of a weak solution of cocaine and adrenalin to the nose and eyes. Albert Bardes, New York, recommends an oil spray containing a grain of menthol and a drop each of pure carbolic acid and oil of eucalyptus to the ounce of albolene. This keeps the nostrils clear and relieves the soreness.

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**Poison Ivy Dermatis.**—From personal experience, Richard Ellis, New York, recommends ice-cold compresses—carron oil, bicarbonate of soda—and the following prescription: Zinc oxide, two drachms; mag. carb., two drachms; thymolis iod., one drachm; aquae calcis, q.s. ad. four ounces. For external use.

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**Infantile Convulsions.**—According to G. M. Pearson, South Africa, a high temperature either precedes or accompanies a fit, except in gross brain disease, and, in his experience, convulsions can be prevented or checked by keeping down the temperature. There is not much chance of convulsions with a temperature under 102°; above 103°, no matter what the illness, it should be lowered by the cold bath. A short bath is useless. The duration of the bath should be regulated by rectal temperature.

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**Appendicitis.**—Do not treat your patient medicinally, says Maurice Chideckel, if Blumberg's sign is present. This is present in all cases of peritonitis. No applications of mustard, turpentine or hot water should be used; no food, not even water; nothing that will increase peristalsis of large or small intestines; and no drug which will paralyze nervous tone. When the patient is a child, no medicinal treatment.

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**Bee Stings for Rheumatism.**—For elderly people, Maberly says, it is better to start with about six stings for the first three applications, and gradually increase up to one dozen, if required. Stings remain in a few minutes. Many months are required for long-standing cases. A forceps has been devised to hold the bees without doing them harm.

**Buttermilk Feeding.**—This practice began 150 years ago with the peasants of Holland feeding their infants buttermilk. Two physicians of that country brought it before the medical profession in 1902 and 1905, respectively. German physicians began using it in 1901. Babinsky recommends its use in acute dyspepsia after the starvation treatment and chronic diarrhea. Holt advises it in intestinal indigestion and diarrheal disease. He directs a quart be cooked for twenty minutes, with two tablespoonfuls of barley flour and four ounces of water, and then adds two teaspoonfuls of cane sugar. Instead of barley, wheat flour is used in Germany.

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**Vomiting of Pregnancy.**—Menthol for this distressing condition is recommended by Meredith Young. It may be given either as validol, or fifteen grains may be dissolved in six drachms of rectified spirit, and made up in six ounces of water. Give a tablespoonful as required.

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**Fistula.**—Beck's bismuth paste, made up as follows, has been successfully employed in treatment of fistula: Ten parts of bismuth subnit., ten parts each of paraffin and lanolin, and twenty parts of vaseline. The amount to be injected is five to twelve CC. Dressings need not be changed often, and suppuration is materially reduced.

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**Syphilis.**—Ehrlich's new treatment of syphilis, although not yet brought to perfection, is said to be causing something of a *furor* in some parts of Continental Europe. It is said that one injection will arrest the disease as efficiently as one year's treatment by any other known method. It is claimed that one injection destroys all the spirochetes and does no harm to any tissue of the body. The cure is called "sterilisatio magna," and the medicine "dimethyldioxiarsenobensoldichlorhydrat," a compound of arsenic. Further investigation and experiment are required as to dosage, mode of administration, etc., before the product will be placed upon the market. It is known as "606."



## Reviews

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*Diseases of the Genito-Urinary Organs.* By EDWARD L. KEYES, JR., M.D., Ph.D., Clinical Professor of G. U. Surgery in the New York Polyclinic Medical School; Surgeon to St. Vincent's Hospital; Lecturer on Surgery, Cornell University Medical School. 975 pages. Illustrated. Price \$6.00. New York: D. Appleton & Co.

In this very admirable work the author has adopted a new and more rational arrangement of the subject matter. Instead of the old-fashioned anatomical and, as the author says, "stilted procession from anomalies, injuries and inflammations, to stone, tubercle and neoplasm," we have here the much more satisfactory sequence beginning with physical examination, urinalysis, urethral instruments, etc., on to a most illuminating chapter on cystoscopy and ureteral catheterism; then one on the estimation of renal function. Then follow about two hundred pages devoted to the most exhaustive—or perhaps we should say the most *satisfactory*—discussion of gonorrhea and its complications it has ever been our privilege to read. This article alone, to our way of thinking, is worth the whole price of the volume. It is modern, scientific and eminently "common sense," which, after all, really means "uncommon sense."

Then follows chapters on the prostate and on cystitis; on the etiology, pathology, symptomatology and diagnosis of renal infections, renal and ureteral calculi, G. U. tuberculosis, diseases of the bladder, and so on through the whole gamut of this extensive train of pathological processes, finally ending up with several chapters devoted to the various operative procedures necessary from time to time, throughout the various parts of the genito-urinary tract.

It seems to us like a piece of crass impudence to attempt to give anything like a just, comprehensive critique of this most ex-

cellent treatise in the limited space at our disposal in this issue. One could devote considerable space to almost any one or two chapters in this work; imagine, then, the responsibility of reviewing the entire work! We do not care to indulge in fulsome adulation of this work—not that it does not merit it, but rather because Dr. Keyes is doubtless as modest as he is able, and so might not relish unqualified praise—but shall content ourselves with assuring our readers that it is one they should not only possess, but should earnestly study, with the full assurance that the author speaks as one having authority.

T. B. R.

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*Text-Book of Pathology.* By JOSEPH MCFARLAND, M.D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia; Pathologist to the Philadelphia General Hospital; Director of the laboratories of Henry Phipps Institute, Philadelphia. Philadelphia and London: W. B. Saunders Co. Canadian agents: The J. F. Hartz Co., Toronto.

This work, so well known to the profession through its first volume, speaks well for itself by the publication of a second edition so soon. This appears in an octavo of 856 pages with 437 illustrations, thoroughly revised and brought up to date. The author has eliminated many of the controversial points which so many of the other authors have published, and in so doing presents a concise treatise of the principles of general and special pathology in such a way that the fundamentals may be easily grasped by the student. The illustrations, consisting of gross photographs, microphotographs and some colored illustrations, are well done and show many of the pathological processes. Dr. McFarland in this publication has realized that the undergraduate in medicine with the present curriculum needs a text-book dealing with facts, and these he presents in such a way that they are easily read and understood. His chapter on progressive tissue changes is especially well written. The publishers have spared no expense in the preparation of this work. Students in medicine will find this one of the most useful text-books in their study of pathology.

O. R. M.

*Practical Dietetics.* With special reference to diet in diseases. By W. GILMAN THOMPSON, M.D., Professor of Medicine in the Cornell University Medical School; Visiting Physician to the Presbyterian and Bellevue Hospitals. Fourth edition, illustrated; enlarged and rewritten. New York: D. Appleton & Co.

Several authors on diet have introduced new editions recently, and Dr. Thompson has wisely brought his work up to date.

The work contains what every work on this subject does, and a little more; but its method of arrangement and the way it is written are more than usually palatable. The articles on milk, soured milk and all its forms, and other conditions of this daily food, are very satisfactory and up-to-date. Diet in various diseases is given unusual space, while an excellent chapter on food for the sick may be noted. The volume can be recommended as the best of its kind.

G. W. H.

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*Diseases of the Heart and Aorta.* By ARTHUR DOUGLASS HIRSCHFELDER, M.D., Associate in Medicine, Johns Hopkins University. Philadelphia, London and Montreal: J. P. Lippincott Co.

Mackenzie presented the profession a few years ago with a book on the heart and its diseases that started us thinking, and now a well-trained Johns Hopkins man issues the result of some years' experience along a subject upon which he has published very numerous articles. The book is based both on scientific knowledge and on practical experience, and no first-class practitioner can fail to avail himself of its contents.

A brief but cogent physiological chapter is followed by chapters on Blood Pressure, Arterial and Venous Pulses, and Physical Examination, while, under these headings are included the description of and recent work on the instruments used for blood pressure, viscosity, sphygmogram, and, of course, the electrocardiogram, and finally the X-ray. Leaving the subject of physical diagnosis, the pathological physiology of cardiac work and failure is taken up, and then follows a modern discussion on treatment in general,

Under special diseases, the attempt is made to separate the diffuse and localized forms of heart disease, a proceeding which is questionably wise.

The disease of the heart and **aorta** are then taken up in an extremely methodical manner, and the reader has no difficulty whatever in finding what he wants for reference. This part of the work is excellent. In addition to being plentifully illustrated, the book has a most complete bibliography terminating each chapter.

I can only add that it appears to me that this is one of the best works on heart yet published.

G. W. H.



# Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

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**Anesthetics:** Samuel Johnston.

GEORGE ELLIOTT, MANAGING EDITOR

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VOL. XXXV.

TORONTO, SEPTEMBER, 1910.

No. 3.

## COMMENT FROM MONTH TO MONTH.

**The Halifax Medical College and Bulletin IV. of the Carnegie Foundation.**—In the *Maritime Medical News* for July, there is published a paper by Dr. D. A. Campbell, professor of clinical medicine in the Halifax Medical College, entitled "Medical Education in Nova Scotia." This paper was read at the fifty-seventh annual meeting of the Medical Society of Nova Scotia, held in Yarmouth on the 7th of July. The paper is a full and unanswerable reply to the report, so far as Halifax Medical College is concerned, and places that portion of the Bulletin No. IV. in an altogether unenviable light. The wonderful critic jumped into Halifax and jumped out again in four hours, and had not consulted with a single officer of Halifax Medical College—yet "knew it all." It is simply astounding that any body laying claim to scientific status should publish and circulate broadcast a report which may now well be considered of questionable value. Such amazing acumen fills one's soul with awe.

Before the final publication of Bulletin IV. a draft report was submitted to the President of Dalhousie University for "comment." "Comments" were sent back from Halifax, which "supplied con-

siderable material facts for correction." These facts were ignored. What is one to think of an action of this character by a scientific body? The authorities of Halifax who "knew," and who apparently were anxious to have "facts" published, were side-tracked in favor of the "trained observer," who, in four hours, could "grasp the spirit, ideals, and facilities" of the Halifax Medical School. Amazing acumen!

The Medical Society of Nova Scotia placed itself on record as follows:

"The Medical Society of Nova Scotia, in session at Yarmouth, July 6th and 7th, 1910, having considered Dr. Campbell's criticisms of the Report of the Carnegie Foundation on the standing of the Halifax Medical College, finds that the report is prejudiced, inaccurate and misleading.

"The Society considers that the best answer to the Report is furnished by the good standing and success of the practitioners who received their education in Halifax.

"The Society believes that the Halifax Medical College has proved its efficiency, and that it serves a useful purpose in the Maritime Provinces and Newfoundland, and it strongly recommends that every effort should be made to ensure the continuance of a medical school at Halifax."

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**In making a choice of climate for the treatment of pulmonary tuberculosis cases,** subjects of this disease should be plainly told there is no specific climate for tuberculosis. There are no "immune zones." That open-air life is the officer in command in the treatment is now generally accepted and understood. All other combatants are the auxiliaries. Open-air life is more pleasant in some climates than in others; and the salts in sea air, the ozone of forests, the rarefied atmosphere of mountains, typify outdoor life. As a routine procedure, advising change of climate is to be condemned. Each case is to be judged upon its own merits, and advice given accordingly. It is well before a patient is ordered a change of climate that as much knowledge as possible be secured of the health resort. To this end it will be helpful to know that the *Journal of Outdoor Life*, 2 Rector Street, New York, the official organ of the National Association for the Study and Prevention of Tuberculosis, has a "Service Department," which will willingly furnish information as to institutions for tuberculosis in the United States and Canada.

## News Items

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DR. EGBERT of Calgary is advocating a children's hospital for that city.

DR. MONTIZAMBERT, Ottawa, is making his annual tour of Pacific coast points.

DR. I. WOOD, Kingston, died recently from a stroke of paralysis.

DR. E. C. BEER, Brandon, has been taking post-graduate work in Chicago hospitals.

OUR readers will find our advertising pages well worth reading, there is always something there of interest to the physician and surgeon.

MANITOBA Medical Council will not reduce the registration fee from \$125 to \$100.

DR. W. A. LINCOLN has been appointed Superintendent of the Calgary General Hospital.

WHEN you are writing for samples or about some article advertised in the pages of this journal it will facilitate replies if you mention you noticed same in the DOMINION MEDICAL MONTHLY.

A NUMBER of Saskatchewan physicians are interested in promoting a sanatorium at a cost of \$60,000.

SIR WILFRID LAURIER laid the foundation stone of the Saskatchewan University on the 29th of July.

DR. E. S. WORTHINGTON, formerly of Montreal, will accompany the Duke of Connaught to South Africa as medical officer.

ALL our advertising is clean and reliable in every way. We see to it that our advertising pages are kept in as good order as our reading pages. Examine for yourself and you will find it so.

DR. H. E. TREMAYNE, Prince Rupert, has been appointed medical officer of quarantine under the Dominion Government.

MISS ROBINA STEWART, graduate of the Johns Hopkins Hospital, is to succeed Miss Snively as Lady Superintendent of Toronto General Hospital.

SASKATCHEWAN will erect the Manitou Lake Sanatorium at a cost of \$50,000. A mile frontage has been reserved by the government on Lake Manitou.

BETWEEN advertisers and practitioners there should be a cordial understanding. One cannot get along very well without the other; and advertisers are always anxious to give the physician just exactly what he wants.

LIEUTENANT-COLONEL CARLTON JONES, M.D., Director-General of the Army Medical Service, has been inspecting and lecturing in Vancouver and other western points.

A LOCAL medical journal is a necessity to every practitioner. Advertisers help largely to make local as well as all medical journals possible. Advertisers, therefore, should receive first call from the profession.

THE French Medical Association of America met in Sherbrooke, Que., in its fourth triennial session on the 24th, 25th and 26th of August, under the presidency of Hon. Dr. Pelletier.

THE reading matter is not all the valuable material in a medical journal. What one may be after is very likely to be found in the advertising pages. Therefore do not fail to look these carefully over each issue.

ADVERTISING is the blood which keeps alive all sorts and conditions of journalism. A prime part of a newspaper or a magazine, it should appeal as well to the patrons of medical journals.

DR. RODDICK wrote the Manitoba Medical Council that the enforced postponement of the amendment to the Canada Medical Act was due to lack of consonance by the Medical Council of British Columbia.



## Correspondence.

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August 11, 1910.

*To the Editor of the DOMINION MEDICAL MONTHLY:*

At the recent meeting of the Congress of American Physicians and Surgeons, held in Washington in May, 1910, a joint session of the American Orthopedic and American Pediatric Societies was held, and the subject of epidemic poliomyelitis was discussed. The following resolution was adopted:

"It having been shown by recent epidemics and investigations connected with the same, that epidemic infantile spinal paralysis is an infectious communicable disease that has a mortality of from 5 to 20 per cent., and that 75 per cent. or more of the patients surviving are permanently crippled, State Boards of Health and other health authorities are urged to adopt the same or similar measures as are already adopted and enforced in Massachusetts for ascertaining the modes of origin and manner of distribution of the disease, with a view of controlling and limiting the spread of so serious an affection."

A committee, with Doctor Robert W. Lovett, President, Boston, Mass.; Doctor Irving M. Snow, Secretary, Buffalo, N.Y., was appointed to urge the various State and municipal health authorities to take up the work of investigation of the various foci of epidemic poliomyelitis, to study its epidemiology and to instruct the public that the disease is at least mildly communicable.

May we ask you to publish this letter and the resolutions in your journal, and also to allude to the matter editorially, urging the Health Commissioners of the various States of the United States and of the Provinces of Canada to follow the example of the Massachusetts Health Department in studying the epidemiology of poliomyelitis.

Respectfully yours,

ROBERT W. LOVETT, M.D., President.

IRVING M. SNOW, M.D., Secretary.

No. 476 Franklin St., Buffalo, N.Y.

Committee on Poliomyelitis, American Orthopedic and Pediatric Societies.

## Publishers' Department

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THE ANTITOXIN TREATMENT OF DIPHTHERIA.—Again are we nearing the season when the problem of diphtheria and its treatment must be met and solved. The writer of this paragraph is forcibly reminded of the fact by the receipt of a modest but important brochure of sixteen pages bearing the title "Antidiphtheric Serum and Antidiphtheric Globulins." A second thought is that here is a little work that every general practitioner ought to send for and read. Not that the booklet is in any sense an argument for serum therapy. It is nothing of the kind. Indeed, the efficacy of the antitoxin treatment of diphtheria is no longer a debatable question, that method of procedure having long since attained the position of an established therapeutic measure. The pamphlet is noteworthy because of the timeliness of its appearance, the mass of useful information which it presents in comparatively limited compass, and the interest and freshness with which its author has been able to invest a subject that has been much written about in the past dozen or fifteen years. Its tendency, one may as well admit, is to foster a preference for a particular brand of serum, but that fact lessens not one whit its value and authoritativeness. Here is a specimen paragraph, reprinted in this space not so much to show the scope and character of the offering as to emphasize its helpful tone and to point out the fact that its author was not actuated wholly by motives of commercialism: "Medical practitioners have learned that inasmuch as the main problem presented in the treatment of a case of diphtheria is the neutralization of a specific toxin, the true antitoxin cannot too soon be administered; moreover, that, antitoxin being a product of definite strength, a little too little of it may fail when a little more would have succeeded—hence larger or more frequently repeated doses are becoming more and more the rule. One more point: if the medical attendant is prompt, as he must be, and fearless, as he has a right to be, the full justification of his course will hinge upon the choice of the best and most reliable antidiphtheric serum to be had; for while there is little or no danger of harm ensuing from the use of any brand issued by a reputable house, the best results—which may mean recovery as the alternative of death—can only be hoped for from the use of the best serum." The brochure is from the press of Parke, Davis & Co., who will doubtless be pleased to send a copy to any physician upon receipt of a request addressed to them at their main offices, Walkerville, Ontario.

Frosst's Capsules contain the Glycerophosphates in accurate dosage, encased in the finest soluble gelatine—no alcohol, sugar, excess of acids or other additions, which in the elixirs and solutions are an objection.

Frosst's Capsules No. 69 afford an eligible form for administering these valuable salts.

In ethical packages of 100

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Calcium Glycerophosphate.....	1 gr.
Sodium Glycerophosphate.....	2 gr.
Iron Glycerophosphate.....	1-4 gr.
Manganese Glycerophosphate.....	1-8 gr.
Quinine.....	1-16 gr.
Strychnine.....	1-128 gr.

**CHARLES E. FROSST & CO.**

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Prof. Philemon E. Hommel, Jersey City, says, "Glycerophosphates have evidently come to stay; they are frequently prescribed in the treatment of neurasthenia \* \* and seemingly give desirable results; they should obtain official recognition in an eligible form."

—Merck's  
Report for May,  
1910.

TO RELIEVE THE EFFECT OF SOLAR HEAT.—Direct exposure to the sun's rays; employment in or living in hot and poorly ventilated offices, workshops or rooms, are among the most prolific causes of headache in summer time, as well as of heat exhaustion and sun-stroke. For these headaches and for the nausea which often accompanies them, antikamnia tablets will be found to afford prompt relief, and can be safely given. Insomnia from solar heat is readily overcome by one or two antikamina tablets at supper time, and again before retiring. If these conditions are partly dependent upon a disordered stomach, two tablets, with fifteen or twenty drops of aromatic spirits of ammonia, well diluted, are advisable. For the pain following sun or heat-stroke, antikamnia in doses of one or two tablets every two or three hours, will produce the ease and rest necessary to complete recovery. As a preventive of and cure for nausea while travelling by railroad or steamboat, and for genuine *mal de mer*, or sea-sickness, antikamnia tablets are unsurpassed.

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CHROMIUM SULPHATE FOR ENLARGEMENT OF THE PROSTATE.—“Ross (*Med. Council*) reports uniformly good results in the use of chromium sulphate in prostatic troubles. He gives details of one case of a patient seventy-three years old, with whom regular catheterization had been necessary for six months. Examination per rectum revealed a prostate as large as a walnut. The patient obtained considerable relief after taking for one week 4 grains four times a day. The dose was then increased to 8 grains three times a day, and strychnine sulphate, gr. 1-130, before each meal was added to the treatment. The improvement was rapid from that on. As a result, use of catheter was discontinued within a space of two weeks. This patient took the remedy for three months. The strychnine sulphate was stopped at the end of the first month. Examination then revealed a prostate of very nearly normal size with no tenderness. Tyler (*Physicians' Drug News*) also reports a similar case in which the chromium sulphate gave an excellent result.”—*The Druggists' Circular*, June, 1910. Charles E. Frosst & Co., Montreal, manufacture the following: C.T. 203, “Frosst,” Chromium Sulphate Pure, 4 grs., C.C.T. 220 “Frosst,” Chromium Sulphate Pure, 4 grs., Elix. No. 77, “Frosst,” Chromium Sulphate Pure.

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CHRONIC ILL HEALTH.—Scarcely a day passes in the life of the busy physician during which he is not consulted by at least one patient who is the unfortunate subject of chronic ill health, from one cause or another. The different factors responsible for long-





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continued invalidism are varied and diverse, but if we exclude organic disease, such as carcinoma, tuberculosis, syphilis, etc., the large majority are neurasthenies and dyspeptics. Of course every physician realizes that the term "neurasthenic" is unscientific and that it is employed, for want of a better name, for the well-known group of symptoms most often noted in the city dweller, who has "burned the candle at both ends" or whose occupation and environment is such as to produce general as well as nervous devitalization. The chronic dyspeptic is usually a neurasthenic, in whom the digestive symptoms predominate, and who generally requires the same reconstructive treatment and regimen. Nerve tonics, stimulants, "pick-me-ups," etc., are usually not only useless, but harmful, and so-called "nerve foods" are but therapeutic "will-o'-the-wisps." Nutrition and blood glandular re-enforcement is the essential indication, and there is no general reconstructive and reconstituent that shows more prompt and potent effects than Pepto-Mangan (Gude), a ferruginous and manganic restorative and blood-builder of proved and undoubted efficiency, entirely free from the irritant, corrosive, astringent and constipating effect of the ordinary preparations of metallic iron.

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THE IDEAL ABDOMINAL BINDER.—One thing is certain, every physician or surgeon who has ever used a "Storm" Abdominal Supporter has been instantly impressed with its special possibilities in relieving prolapse of the viscera, to say nothing of its great utility as a support during pregnancy, and after laparotomies. Invented by a physician who has given the most extensive study and investigation to the subject, the "Storm" Binder comes more closely to meeting anatomical needs than any other supporter. Moreover, it is mechanically perfect in every detail, and thus retains its shape and efficiency, without the changes due to use and wear that make the ordinary abdominal binder worse than useless after a very short time.

Patients seem to derive more immediate comfort from the "Storm" Binder than any other form of support, and it is hardly necessary to speak of the sustained and permanent benefits invariably obtained. The simplicity of the "Storm" Binder is commendable, and doubtless much of its utility is due to this quality. It does not fret and annoy the most nervous invalid, and as voiced by a recent patient, profoundly neurotic, "I would never know I had it on, but I know when I leave it off."

In brief, the "Storm" Binder is the ideal abdominal supporter for men, women and children, and physicians who use it once will never allow their patients to use any other. It is in a class by itself

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We carry a complete line of PASTEUR Filters. The Pasteur was invented by the eminent French scientist, Louis Pasteur, and is the only germ-proof filter made. The filtering medium is a porcelain tube, the density of which is  $\frac{1}{1000000}$  part of one inch, which prevents all micro-organisms from coming through.

**\$10 Up** See Demonstration at

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is soothing and satisfying. It contains all the elements of a natural food in a condition suitable for immediate absorption.

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Readers can obtain a 48-page Booklet, "Benger's Food and How to Use It," which contains a "Concise Guide to the Rearing of Infants, and practical information on the care of Invalids, etc., on application to Benger's Food, Ltd., Otter Works, Manchester, England.

*Benger's Food is sold in tins by Druggists, etc., everywhere.*

in its special field of utility. Every physician should have a supply of diagrams for measuring, etc., and for these should address Dr. Katherine L. Storm, 1612 Diamond St., Philadelphia, Pa.—From *American Medicine*, March, 1910.

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After an experience of nearly fifty years, I can say I have met with no remedies whose results were more satisfactory than those of Resinol Ointment. As an anti-pruritic, its effects are almost instantaneous. I have now a case of eczema of long standing in a person nearly 70 years of age, involving almost the entire body. In this case the itching was most distressing, but is at once allayed by the application of the Resinol.—A. M. Waddill, M.D., Rolling Fork, Miss.

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A TIDY unopposed medical practice and property is for sale about forty miles from London, Ontario. It nets over \$2,000 annually and is situated in the finest country. The price is right and further particulars may be got by applying to us.

---

A NICE \$2,500 medical practice is for sale in the County of Grey. It is unopposed, no property, and can be got cheap.

---

A GOOD three to four thousand medical practice is for sale in a nice village about fifty miles east from Toronto. The price is right, and further particulars will be furnished by application to this office.

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ADVERTISING is a very important part of medical journals. Many a man has found good things in the advertising pages. If you have not examined these in the past it is time to commence and make it a routine practice.

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MATERNITY HOSPITAL.—Out-of-town physicians referring cases for confinement in Toronto can get particulars of a nice, quiet, well-appointed home, in charge of a competent and experienced nurse, by addressing this office.

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I have prescribed Resinol with excellent results, especially in eczema and all skin diseases, with pruritus.—H. Remy, M.D., Biddeford, Maine.



# Dominion Medical Monthly

And Ontario Medical Journal

VOL. XXXV.

TORONTO, OCTOBER, 1910.

No. 4

## Original Articles

### A NEW APPLIANCE FOR SUPRAPUBIC DRAINAGE, WHICH KEEPS THE PATIENT DRY WHILE "UP AND ABOUT."

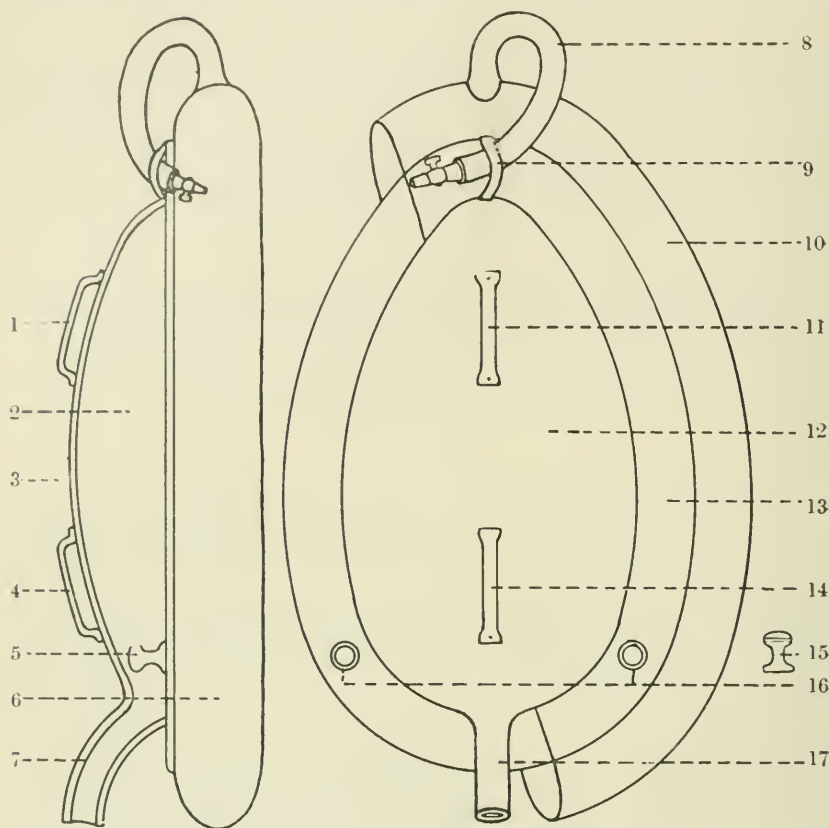
By G. S. GORDON, M.D., VANCOUVER.

The difficulties in the way of drainage following suprapubic cystotomy has influenced in a considerable way the choice of route for prostatectomy and the use of a catheter *à demeure* in cystitis, cancer, etc. Perineal prostatectomy probably owes its lower death rate, to a large extent, to getting these patients out of bed early. An analogous condition is fracture of the neck of the femur in old age. The advanced in years do not do well if confined to bed for surgical conditions. On the other hand, the impossibility of keeping the urethral flora from getting a foothold and setting up urethritis and perhaps urethral fever when permanent catheterization is resorted to, is well known. Probably the best thing to do in most cases is suprapubic cystotomy, provided one could but keep the patient dry in any position and yet have efficient drainage. No such appliance, so far as the writer knows, has heretofore presented itself. The one now brought to your attention has been used with satisfaction in two of our cases, in which most other methods had failed.

The first tried was on the same principle as the *trompe d'eau*. The writer had seen it used by Zukerkandl, of Vienna, and was much impressed with its apparent efficiency. This exhaust method

\*Exhibited at the B. C. Medical Association, August, 1910.

operates by means of a current of water passing from a vessel over the bed to one under it, through a tube to which is attached at right angles another tube from the bladder. The main current



Section View.

Surface View.

#### New Appliance for Suprapubic Drainage.

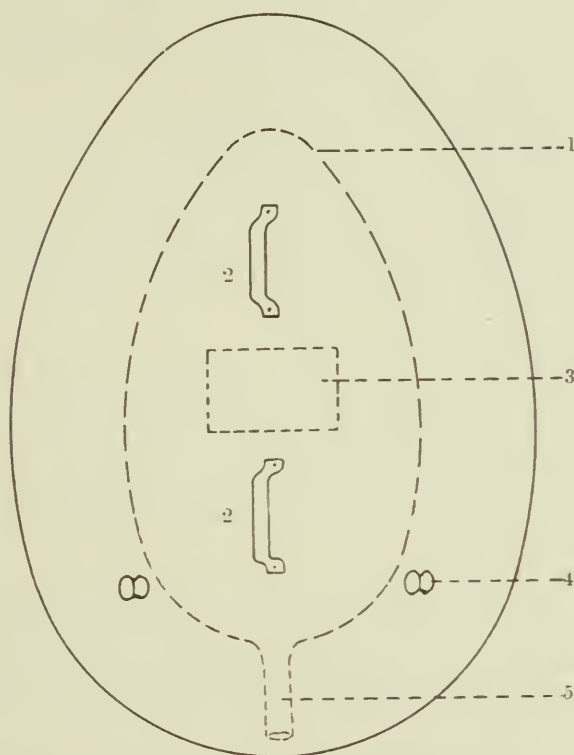
1—Upper bridge. 2—Inside of dome. 3—Surface of dome. 4—Lower bridge. 5—Stud for understraps. 6—Air cushion. 7—Draining tube. 8—Cushion, inflating tube and stop-cock. 9—Rubber strip holding stop-cock away from abdomen. 10—Cushion, pure gum rubber, air inflated. 11—Upper raised metallic bridge to allow retaining straps to pass under. 12—Metal dome of plate. 13—Rubber flange of cushion stretched over plate. 14—Lower metallic bridge. 15—Section. 16—Studs of metal to hold understraps. 17—Drainage outlet tube, draining of base of dome.

creates a vacuum in the drainage conduit, and thus draws off the vesical contents, which pass as a side current into the main tube and thence into the receptacle under the bed.

Objections.—It was a burden to keep the reservoir over the bed filled, and failure to do this resulted in overflow of the bladder.

It is difficult to thus regulate suction, and at times the bladder wall was drawn against the holes in the drainage tube, thus blocking them.

The prone position is indispensable.



1—Dotted line shows to what extent the rubber flange on the air cushion overlaps. 2—Cleats under which pass straps which encircle the hips. 3—Here may be soldered a clamp to compress the inflation tube of the air cushion after it has been inflated. 4—Posts for attachment of straps to pass between the legs to hold down lower margin of plate. 5—Tube.

The urine mixes with the reservoir contents, and one cannot keep record of quantity or quality.

Then simple syphonage was given a trial. A glass drainage tube in the bladder was attached to a rubber tube, full of water, which hung over the edge of the bed. One had to be careful not to spill out the water in the syphon tube when attaching it to the drainage in the bladder, and it worked well, keeping the dressings

dry when the prone position, or Fowler position, was assumed, and allowing of a limited freedom of movement by the patient in the bed. This we think the most suitable apparatus for one confined to bed—bar the one finally to be described.

Hamilton Irving's apparatus used in St. Peter's Hospital, London, consists of a celluloid cup, which is held with strapping over the abdominal wound and has drainage tubes attached to it. It does not apply itself well to the abdomen of thin people, and so far as the writer knows, is not used except for bed-ridden patients. One would expect it to leak between skin and cup with the movements of stooping or walking.

We also used another English appliance, which consists of a glass beaver hat shaped affair, which is held in place by a rubber sheet, perforated to go around the top of the hat and lie on the rim. This rubber sheet is cemented to the abdomen. We found the cement would hold for only a few hours—tried several kinds of cement; but found none which would hold rubber to skin for any practical period, and discarded the appliance as useless on this account.

A "*urinae hypogastrique pour recueillir les urines après cystotomie*" ordinarily used in France (Albarran), which had been overlooked in devising the one about to be described has this in common, that the air cushion principle is the same. This we subsequently used, as it was at first looked on as practically the same as the author's design; but was found to allow of leakage between the skin and it, because the soft rubber cap allowed the air cushion to wrinkle on stooping.

The author's urinal was first made from the inflatable rubber ring of an Allis' inhaler, the flange of which suggested the possibility of inserting a metal plate to fit over the distensible part in such a way as to be held firmly from slipping on it. To this plate were attached metal loops for straps to pass around the hips, and at the lower margin, as wide apart as possible, posts, for clasps to straps which pass between the legs and up to the belt behind. These held the appliance in position. The plate was perforated between the posts and a hollow elbow soldered on, through which the urine could find its way to a rubber tube discharging into a rubber bag held on the leg. This plate can be made by a village tinsmith, of a shape to fit the inflatable rim of an Allis or Clover inhaler, the rim itself is part of the usual armamentarium of a surgeon, while the rubber reservoir, glass, and rubber tubing are in every drug store. We used a quart hot water bottle for the urinal part, placing a perforated rubber cork in the neck, through which ran a glass tube.



Advantages: 1st.—The *solid metal top* when its edges are pressed on from above or below, displaces the air, so that the degree of pressure on the abdomen under every part of the cushion is equal at all times, and there is no possibility of an aperture between skin and apparatus on movement or in the most emaciated. Moreover, there is no chance for the inflated ring to buckle on itself.

2nd.—Any country surgeon can improvise the apparatus from materials at his hand.

3rd.—Following suprapubic prostatectomy, the patient can be on his feet with as much or more comfort than if the perineal route had been followed. The dorsal position usually assumed of necessity in the former case may be the cause of its slightly higher mortality. An analogous condition is that of fracture of the head of the femur in old age.

4th.—One is warranted in suprapubic drainage in cancer of the bladder, when dysuria becomes marked, in preference to a catheter *à demeure*, which always sets up urethritis, perhaps fatal urethral fever, and which is oftentimes not tolerated well.

5th.—Suprapubic fistula, when they do not respond to attempts at closure, will be less annoying when leakage is thus confined.

In conclusion, it is well to have the part of the abdomen to be covered with this appliance anointed with vaseline to protect it and the wound from the urine—animal fats rot the rubber cushion, which, with vaseline, will last at least a month.

If the wound is to be kept open, a flanged tube is to be placed in it.

The appliance is being especially constructed, and is to be placed on the market by Stevens & Son, Ltd., 78 Long Lane, London, E.C., England. There are agencies in Toronto, Winnipeg and Vancouver.

Suite 303, Dominion Trust Building, Vancouver.

## THE TOILET OF THE TYMPANUM AND ITS RELATION TO THE SUCCESS OF THE RADICAL MASTOID OPERATION.

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BY GILBERT ROYCE, M.D., TORONTO.

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Although the first consideration in operating on a case presenting a chronic purulent otitis media is the cure of the discharge, the preservation of what hearing the patient may have in the affected ear should not be lost sight of. The loss of hearing following the operation has been urged by many as a point against its employment, together with the fact that in some cases the discharge is not cured. This has led to various modifications, and Heath and others have advocated procedures reputed to obviate the tendency to loss of function on the part of the diseased member.

It is not the purpose of the paper to discuss the merits of the different operative measures, but to account to some extent for the failure of the radical operation in certain cases. From a personal experience with many of these operations, performed by different surgeons of varying ability, the writer has been led to the conclusion that a considerable number of these failures are due to improper treatment of the tympanic cavity. In other words, the toilet of this space has not been thorough enough; diseased bone has been left behind and the discharge keeps up; interfering with the stapes and windows, or the various structures of the internal ear, results in loss of function; neglect to smooth the surface and to eradicate all ridges and pockets renders certain parts inaccessible to the after treatment, thereby delaying dermatization and favoring the formation of excessive granulation tissue, which acts as a buffer to sound waves.

But the question is sometimes asked, "What can one do in the tympanum, surrounded as it is by so many vital structures?" The answer is, a great deal can be done provided the operator possesses an intimate knowledge of the relation of its parts and a safe technique. Such can only be acquired by witnessing many operations, or by considerable work on the cadaver, for the tympanum is not constant in its general contour. The chisel or gouge, although satisfactory enough in the mastoid operation, is not a safe instrument in tympanic work. Here the motor driven burr, or a properly made curette lend to a more finished result. The disadvantage of the burr is that the teeth become clogged with fine bone dust, which

forms a cement with the blood. This necessitates frequent cleansing, thus prolonging the operation. The curette devised by J. D. Richards, of New York, is a most efficient instrument and has proved satisfactory in the writer's hands.

As the tympanum is frequently crowded with granulations, a view of the condition of its walls can only be obtained by cautiously removing these, care being taken not to disrupt the stapes, or to curette over the facial canal for fear of injuring an exposed nerve. The subsequent examination should be done under a good light.

The stapes, if present, appears as a small white knob just below the horizontal semi-circular canal. Running from beneath this canal, across the inner wall, may sometimes be seen a small ridge of bone, which marks the course of the facial nerve across the tympanum; it is not wise to curette over this or about the oval window for obvious reasons.

The most frequent spots for the occurrence of necrosing bone are the mouth of the Eustachian tube, the posterior segment of the tympanum, the roof of the attic, and the promontory.

The presence or absence of fistulae leading to the internal ear should be carefully determined, as their presence would account for a loss of function and affect the prognosis of the case. In curetting the mouth of the Eustachian tube only one direction is safe, and that in a direction towards the chin, for below and behind is the carotid artery, which is covered by a very thin plate of bone, while above is the facial nerve as it leaves the tympanic cavity. The tube should not only be curetted out, but its outer lip shaved down so that one can look directly into it; this procedure favors the obliteration of its lumen, thereby preventing the evacuation of mucous from its interior, and disposes of a ridge which so often retards the progress of dermatization. Just above the tube is the processus cochleariformis, which is often prominent. In removing this care must be exercised, as it is in intimate relation with the facial nerve. The remains of the tensor tympani muscle can sometimes be seen alongside the processus, and appears as a small flag of tissue; it is a potent producer of granulations in this region and should be curetted out, always with considerable caution. Having flattened the facial spur or ridge as far as one can with safety, that is, to the level of the top of the eminence of the horizontal semi-circular canal, its anterior face should be thoroughly examined for necrotic bone, for it is here that it frequently occurs. Its removal should be carefully done, the facial nerve being only about 2-4m. posterior to it.

It is not wise to curette about the round window, although the tympanic wall in this region is often exceedingly irregular. After the removal of the outer wall of the attic, the roof should be explored, for the dura will sometimes be found exposed, in which case it is well to chip away the bone from the margin of the exposed area until a healthy membrane is seen. Attention can now be paid to obliterating the outer wall of the hypotympanum and levelling the inferior meatal wall. Whiting lays great stress on this point, for if it is not done a recess exists for the accumulation of discharge. Care is required here not to allow the instrument to impinge on the inner tympanic wall, as the carotid artery is in relation in front, and the jugular bulb behind, both being covered by a thin wall of bone. With regard to caries over the promontory, only the very lightest curetting is permissible, or in some cases perhaps none at all, the diseased parts being allowed to exfoliate. In some cases, owing to the peculiar shape of the tympanic space, the anterior wall shuts off a view of the region about the tube and parts above this, these being at the apex of a narrow acute angle, and hence inaccessible to after treatment. The convexity should be trimmed down, care being taken not to break through into the maxillary joint.

The whole cavity can now be cleansed with alcohol and packed with iodoform gauze, which is removed on the fourth day and firmly repacked with narrow short strips of plain gauze, filling highly every angle. This is a very important point and should be repeated daily. On no account should dressing of a stimulating character be used, otherwise granulation will spring up and rapidly fill the cavity. No syringing is necessary, as the cavity, being accessible in all its parts, can be cleansed thoroughly with cotton bearing applicators dipped in solutions of biniodide of mercury. Granulations can be curetted down or discouraged with solutions of alcohol and bichloride. An excellent non-stimulating powder is stearate of zinc, which serves to keep the cavity dry, a condition so essential to rapid dermatization.

In the writer's experience firm packing is the only reliable prophylactic measure against excessive granulation, although it may cause some discomfort to the patient.

The hearing of these cases after operation should not suffer any more than in an ordinary ossiculectomy, provided such precautions as are detailed above be carried out; in fact it will be often improved. For the retention of what hearing exists the after treatment is quite as important as the operative part, and it is our experience that the longer dermatization is delayed the more likely are we to have impaired function. The tympanic cavity is usually



the last to dermatize, being the most remote from the skin margins. However, we have seen cases in which the dermatization of this cavity proceeded rapidly from the skin of the anterior canal wall, so that it was really covered before the mastoid portions. This depends on careful and thorough work done about the tube and anterior tympanic wall. In these cases the hearing power was especially good for watch being 060, and whisper at 8 feet.

Dench, in a series of 111 cases, in which hearing records were kept, obtained good hearing in 99 (whisper at 5-15 feet); fair in 9 (whisper at 6-3 feet), and bad in 3 cases.

Arnold Knapp reports the hearing in 14 cases to be 7 improved, 4 stationary, and 3 worse.

Jordan out of 15 cases obtained 10 improved and 5 stationary.

These were nearly all cases of caries in the tympanum.

From our own experience, although limited to a series of but twenty cases, diminution or loss of function has been the exception. Those in which the results were especially good considerable care had been paid to the tympanic cleansing, both in the operative part and in the after treatment. In many other cases, the post operative treatment of which was left for the writer to carry out, there occurred some with delayed healing, and in these roughened bone could be detected most commonly about the mouth of the Eustachian tube, or on the posterior tympanic wall. In others the hypotympanic recess was not obliterated, so that drainage was imperfect.

It might be mentioned here that young children are not good subjects for the radical operation, for the bone being of a diploic nature granulations are formed with great rapidity, and it is very difficult to prevent the tympanum from filling, with loss of function as a result.

## Medicine

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GRAHAM CHAMBERS, R. J. DWYER, GOLDWIN HOWLAND,  
GEO. W. ROSS, WM. D. YOUNG.

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### **Experimental Epidemic Poliomyelitis and Its Relation to Human Beings.** BY SIMON FLEXNER, M.D., NEW YORK. *Archive of Pediatrics.*

Flexner's last paper on this up-to-date subject tells us that this disease has been transmitted to monkeys from man by injecting diseased spinal cord into the brain, peritoneal cavity, skin, circulation, etc., but that into the central nervous system only is valuable in transference through twenty odd generations. This prolonged passage of injection evidences the virus is a living thing and not a toxine. This virus is filtrable and cannot be cultivated outside the body, while it practically kills all monkeys as compared with a power of causing 5% mortality in humans.

The incubation period is 3-30 days and infection probably occurs per nasal mucous membrane, while the seat of the disease is in the membranes.

The cerebro-spinal fluid is clear with excess of lymphocytes, but a short period before the paralysis it may exhibit changes. The virus when mixed with the serum of recovering cases will not be virulent, and here lies our hope of discovering a cure.

G. W. H.

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### **The Nervous Unfit.** S. S. CROCKETT, M.D., NASHVILLE, TENN. *Journal A. M. A.*

The steady advance in specialism in all departments of medicine inclines towards one fault: Among the host of nervous people to-day who live at the doctors' offices, each physician-specialist takes the patients' symptoms to be due to disease in his own sphere of work. *Result*, unsatisfactory. "As a critic may I add: Surely the time will come when besides suggestion, rest cure, electricity, vibration, etc., etc., we shall have the real application that will cure the nervous wreck."

G. W. H.

**Amyotonia Congenita.** The Report of a Case with Muscle Biopsy. A. L. SKOOG, M.D. *Jour. A. M. A.*

Oppenheim's classical cases showed a disease of early infancy, confined to skeletal muscles which exhibited (a) hypotonia; (b) paresis of varying degrees, of the legs principally; (c) relaxation and soft muscles; (d) reflexes below normal, and (e) no R. D., but reduction of electrical excitability. Sphincters, sensation, etc., normal.

Skoog's case (49th case on record).—Female, aged 22 months. Has never walked, but otherwise developed normally, but at 14 months old her muscular condition attracted notice. Mental condition good.

All the articulations of the limbs have excessive joint movability, and the extremities lie flaccid. Spinal mobility is exaggerated. The muscles feel soft, but the atrophy is hidden by fatty layers. Deep reflexes are absent. No plantar response. E. R. gives feeble response.

G. W. H.

## Psychiatry

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W. C. HERRIMAN, ERNEST JONES.

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### **Nervous and Mental Disturbances of the Male Climacteric.** By

A. CHURCH. *Jour. of the Amer. Med. Assoc.*

Church, after referring to the opinions and observations of various writers (the most thorough, however, those of Fleiss and Swoboda, are omitted), states his belief that there is a monthly rhythm in man as in woman, and, further, that men also pass through a certain climacteric. He has observed cases of epilepsy and migraine whose manifestations showed a monthly rhythm. At the climacteric various minor disturbances are common, particularly depression, anxiety (he erroneously includes obsessions under the anxiety neurosis), loss of weight, indigestion and increase in arterial tension. They have no serious import. The physical health should be built up.

E. J.

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### **The Dependence of Neurology on Internal Medicine.** By

COLLINS and BAILEY. *Jour. of the Amer. Med. Assoc.*

The main thesis of this paper is the neglect of neurology in America, and the importance of establishing neurological wards or hospitals where competent workers may carry out investigation and treatment. "Magnificent endowments almost yearly further the advances in surgery, medicine and psychiatry(?), but neurology is left to take care of itself. . . . In the recognition of brain abscess, meningitis, acute intoxications and injuries of the nervous system, the student either goes uninstructed or else gets his instruction from men neither particularly interested nor particularly versed in these subjects. . . . Ever since the publication of Erichsen's book on spinal injuries, it has become every year more obvious that nervous diseases require men of special equipment, judgment and inclination to interpret them correctly. Neurology is more special in study and practice than any of the recognized subdivisions of surgery, just as special and far more extended than ophthalmology or otology. So thoroughly has it been recognized as a field of activity *sui generis* that no argument on the subject seems



necessary. . . . We can claim no great achievement in the past ten years. American neurology is not only at a standstill, but its sphere is constantly being curtailed. . . . As the neurologist has neither beds nor laboratories, the psychoses and neuroses with gastric symptoms have entirely passed from his hands and have lost their names. Under the mask of gastropstosis, mucous enteritis, and achylia, the patients are subjected for years at a time to the pernicious suggestions connected with local treatment. . . . And then that great wilderness of pathology, the psychoneuroses—what opportunity is furnished us to study them intelligently and thoroughly in this country? A hurried interview in the out-patient department, where neither the environment nor the facilities favor the slightest revelation of the soul, then the patients disappear into the maelstrom of Eddyism, quackery, and the commercial sanatorium."

Many of the remarks apply to Canada as well as to the United States.

E. J.

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#### **The State Care of the Inebriate.** NEFF. *Jour. of the Amer. Med. Assoc.*

"Individual consideration of each case is the only rational and effective mode of treatment. Abstinence from alcohol is not sufficient for cure; it is required that the patient co-operate in normal measures instituted for his betterment and the ultimate success of hospital treatment depends on this sustained treatment. A state hospital for the treatment of inebriety should be considered an educational centre; it should have adequate equipment for treatment of such cases, and should have facilities for segregation and individual treatment of the diverse types."

E. J.

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#### **The Ethical Aspects of Expert Testimony in Relation to the Pleas of Insanity as a Defence to an Indictment for Crime.** By CARLOS MACDONALD. *Med. Rec.*

This is a very lucid and sane discussion of an extremely difficult question. Those interested in the subject are referred to the original; the article has too much bearing on the law of the American constitution to render it suitable for abstraction here.

E. J.

## Ophthalmology

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D. N. MACLENNAN, W. H. LOWRY.

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**"Papilloedema," "Optic Neuritis," "Choked Disc."** By SIR  
VICTOR HORSLEY. *B. M. J.*

Sir Victor Horsley wrote this paper in vindication of his views, that in cerebral tumor the optic neuritis is ipsilateral with the tumor, appears first on the side of the tumor, or, as he expresses it, on the side of a "tension lesion." He quotes a number of cases showing that ipsilaterality is the rule and contralaterality is the rare exception.

He says the papilloedema usually begins at the upper nasal quadrant, and advises that this region of the disc should be watched in doubtful cases in which tumor is suspected.

He describes an experiment which he thinks proves the theory of the late Mr. Gunn, that the macular figure seen in edema of the retina is due to tension lines which centre at the fovea. He fixed the fundus of an eye, from a case of early optic neuritis, and exposed the preparation to drying, and as the drying process proceeded the retina began to crinkle in a star-shaped pattern, centering at the fovea. He also says that the white spots which compose the figure are situated in the nerve fibre layer.

W. H. L.

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**The Ocular Palsies Associated with the Induction of Spinal Anesthesia by Various Solutions.** By WENDELL REBER, M.D.  
*Journal A. M. A.*

In this paper attention is called to a somewhat rare complication following spinal anesthesia induced by novocain, stovain, tropocain, cocain and alypin, namely, paralysis of one or more of the ocular muscles. The complication occurs in about one in four hundred cases, though different observers have given different proportions, one even making it one in a hundred cases. The paralysis comes on in about two weeks after the induction of anesthesia, though it has occurred as soon as five days after, and as late as

six or eight weeks after; it lasts from a few days to a few weeks, though it has lasted as long as eight months, and it is feared there has been permanent paralysis in a case or two. The muscle involved is most often the internal rectus, but the superior oblique is also quite often involved.

The dose of the drug used seems to have some influence upon the frequency of the palsies, for it has been observed that palsy more frequently follows a dose of 10 cgms. than 5 cgms. The cause of the paralysis is not clear. It has been thought to be due to an impurity in the drug, and also to spoiling of the solutions in the process of sterilization. What the pathological process is is not known, but is probably something similar to the tissue process we see in paralysis following an attack of diphtheria. This complication following the use of this very useful method of inducing anesthesia is a very important one indeed, inasmuch as a permanent diplopia, even a temporary diplopia lasting a few months is a very disagreeable symptom. Indeed one can conceive of a patient thus affected having some ground for taking legal action for damages, unless the physician knew of the possibility of such a complication.

W. H. L.

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### **Report of the Committee on Collective Investigation Concerning the Ocular Muscles.** *Jour. A. M. A.*

The summary of this committee is of general interest to the oculist as well as to the general practitioner. As the result of their investigations they have

1. Corroborative evidence concerning the check ligaments, sufficient to warrant a definition of their extent.
2. Corroborative evidence of the existence and extent of the secondary insertions of the ocular muscles. All will agree as to the clinical importance of this finding.
3. A few exact dissections of the ciliary ganglion.
4. Corroborative evidence as to the power of accommodation with parallel visual axes.
5. New curves indicating the effects of cocain, showing the important fact that it has a cycloplegic action.
6. A curve for the action of homatropin, gr. 1-50.

7. Curves indicating that various strengths of eserine produce varying curves, showing its effect upon accommodation.

With regard to the action of cocaine it was found that from  $1\frac{1}{2}$  to 2 dioptries of accommodative power were lost within 30 minutes after the instillation of 1-25 gr. The effect lasted from one hour until two and a quarter hours in different cases, but gradually decreased in amount after 30 minutes after instillation. In each case the dilation of the pupil corresponded with the loss of accommodative power. This important fact shows that cocaine is strongly contra-indicated when there is any tendency to increased tension of the eye.

W. H. L.



## Rhinology, Laryngology and Otolology

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GEOFFREY BOYD, GILBERT ROYCE.

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### **The Role of Otolology and Rhino'ology in Preventive Medicine.** J. J.

KYLE, M.D., Indianapolis. *Journal A. M. A.*

After reviewing the influence of impaired function in the nose upon the general well-being, the writer takes up the influence of the diseased tonsil. There is a direct connection between the cervical lymphatics and the tonsils, and it is probably by this avenue that general infection spreads from the tonsils through the body supplemented sometimes by the blood stream. The size of the tonsils has nothing to do with cervical adenitis and general infection; a small cryptic tonsil of a degenerate type is usually more productive of adenitis and general infection than large pedunculated tonsils.

The author cites cases which came under his observation showing general apathy, loss of flesh, elevated temperature, and in whom the tubercle bacilli were found in the cheesy deposits of the tonsils. After complete removal of the tonsils in their capsules all the symptoms disappeared. The direct connection of the cervical glands with the apices of the lungs makes it comparatively easy for the tubercle bacilli to seek the point of least resistance, which is the apex of the lung in many cases.

There is also a connection between diseased tonsils and articular rheumatism, and some observers have reported an improvement in the rheumatic condition following a complete tonsillectomy.

All hypertrophied and diseased tonsils should be removed early, and even small tonsils also if there is enlargement of the cervical glands.

G. R.

## Gynecology

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F. W. MARLOW, W. B. HENDRY.

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### **The Treatment of Cancer of the Uterus When Too Far Advanced for Cure by Extirpation of the Uterus.** H. J. BOLDT, M.D., New York *Journal of Am. Med. Assn.*

Dr. Boldt urges the importance of teaching women the necessity of applying to their physicians on the first manifestation of a pelvic symptom even slightly at variance with their normal condition, particularly a variation in menstrual function, including a leucorrheal discharge, especially if their age be past 40 years.

Palliative treatment, he maintains, becomes especially important when we recall that by preventing the nutrition of cancer cells we cause them to undergo retrograde metamorphosis and thus destroy their activity. And clinical experience has shown that such treatment may benefit cancer patients by directly destroying the cancer cells with the agent used, and perhaps by forming a protection against the cancer proliferation.

He uses the curette and cautery, but before beginning the surgical intervention he advises a cystoscopic examination of the bladder to determine to what extent the neoplasm has progressed. Also if the vagina be found extensively infiltrated by the cancerous growth it is inadvisable to do anything with the curette and cautery.

The curette used is a large, heavy, specially constructed instrument called a "cancer spoon," and with it he scrapes away all readily breaking-down structures. The bleeding is stopped with an extra large dome-point electrode of a galvano-cautery, so that it can be done rapidly. To avoid burning the vulva and vagina he uses a metal speculum with a double hull shaped like an old Ferguson speculum, which is kept cooled by a continuous flow of cold water through the dividing space. The burning and charring is done very thoroughly, so as to leave practically only an outer shell of the uterus.

After the eschar is thrown off he recommends swabbing with strong tincture of iodine or with acetone every second day until the cavity has contracted.

W. B. H.

**Dysmenorrhea.** By AUGUSTINE H. GOELET, M.D., New York. *International Journal of Surgery.*

Goelet recognizes two principal types of dysmenorrhea, viz., one when the menstrual flow is scant and insufficient and the other when the flow is too free or profuse.

When the flow is scanty it usually signifies imperfect development of the ovaries or uterus, or both, or it may be a condition of atrophy. It may also be caused by displacements, growths or tumors interfering with the blood supply to the uterus and ovaries.

'When the flow is too free it may indicate inflammation of the endometrium or the uterine body and adnexa, a growth in the uterine cavity or in the wall encroaching on the cavity, or obstruction to the return circulation from the uterus by growths external to it, or inflammatory exudates in the broad ligaments, or adhesions so distributed that the vessels are constricted.

Pain appearing before the flow is usually of ovarian origin, or it may be tubal. When the pain is paroxysmal in the beginning and the flow scanty and intermittent, it usually denotes obstruction at the cervical canal. When the pain continues throughout menstruation it is evidence of some chronic inflammatory condition of the uterus or adnexa, and when the pain is more severe or continues after menstruation has ceased, and especially if a discharge follows the menses, with at times insufficient flow, it usually denotes interference with the circulation of the uterus by growths or deposits such as inflammatory exudates, or it may be displacement of the uterus.

Dysmenorrhea appearing for the first time only after marriage almost always indicates infection, improper marital relations, excesses or efforts to prevent conception, and should receive prompt attention

W. B. H.

## THERAPEUTIC TIPS

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### HEMOPHILIA.

It is said by Guibal (Germany) that surgeons before operating on a hemophilic should inject 10 to 20 c.c. of fresh horse-serum or a corresponding dose of diphtheria antitoxin, as horse-serum controls hemorrhage.

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### EPISTAXIS.

Boyd (Australia) describes a new method of treating epistaxis: A piece of fine starched muslin five or six inches square is used. With a penholder or dressing forceps make a closed umbrella-like formation and pass this through the naris to posterior naso-pharyngeal wall. Withdraw forceps and plug cone of muslin with cotton soaked in any styptic, as vinegar, as firmly as thought desirable. The muslin should not be moistened.

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### ACUTE GONORRHEAL VAGINITIS.

According to John B. Talmadge, New York, acute gonorrheal vaginitis is best treated with warm douches of 1: 1,000 or 2,000 solution of permanganate of potash. The vagina should be ballooned by compressing the lips of vulva around the tip of the syringe, so that the vaginal folds are eradicated. Add to this once a day a swab of a 10 per cent. argyrol solution. Then a tampon soaked in the same solution placed in for three or four minutes. Then wipe the vagina dry and insert a tampon of tannic acid and dolomol powder, which is to be left in until the next douche.

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### PINWORMS.

W. Zinn recommends in adults for first day treatment a fluid or semi-solid diet. Calomel and jalap of each  $7\frac{1}{2}$  grains, say at 3 p.m.; at 6 o'clock a soap enema about 1 to  $2\frac{1}{2}$  quarts of water. On the second day continue fluid diet. At 8 a.m., 10 and 12 a powder of santonin, grs. 5 to 6, and calomel, grs.  $1\frac{1}{2}$ . 1 ounce of castor oil at 2 p.m., if necessary repeated at 4 p.m. Third day fluid diet and a warm bath in morning with an enema 1 to  $2\frac{1}{2}$  quarts of warm water and 0.5 per cent. green soap. Fourth and fifth days same.



## ACUTE ALCOHOLISM.

It is said that one-half to one drachm of ammonium chloride in solution at one dose followed by a large draught of water will sober up a patient quickly.

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## NEURALGIA AND SCIATICA.

Baffling and intractable as is the treatment of these sometimes, R. W. Philip (Edinburgh) tells us that experimental and clinical work has shown that the injection of alcohol into a nerve trunk will cause paralysis of both motor and sensory nerves. Using Schlosser's method of alcohol injection he reports 38 cases of complete relief out of 41 reported cases of *tic douloureux*. Freedom from all pain lasted from  $4\frac{1}{2}$  to 14 months. For sciatica he uses a special hollow needle and injects 2 c.c. of a 1.5 per cent. solution of eucaine, and after 15 seconds 100 c.c. of warm saline solution. The patient is kept recumbent at least 12 hours. Out of 34 cases of chronic sciatica 24 were completely cured.

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## POST PARTUM HEMORRHAGE.

Successful constriction of the abdominal aorta by means of the Momburg rubber belt or tube wound around the waist has been established as a cure for this alarming condition in the women's university clinic in Munich in charge of Doderlein.

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## ECLAMPSIA.

Jacobson, New York, finds that remarkable improvement takes place by the continuous rectal administration of sugar water by the Murphy drop method. Only water is given by the mouth for three days, and in addition *veratrum viride*, hypodermically, catharsis, blankets and hot water bottles; later, salt-free diet.

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## VARICOSE ULCERS.

A useful accessory treatment is employed by Eugene H. Pool, New York. The ulcers are dressed three times a week and the patient made to lie on the back with legs elevated to a right angle against the wall for fifteen minutes. Massage is done in this position, stroking towards the trunk, and then the dressings and bandages applied. If the bandages seem too tight to the patient this position is recommended three times a day for fifteen minutes.

## Reviews

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*E. Merck's Annual Report of Recent Advances in Pharmaceutical Chemistry and Therapeutics.* Volume XXIII. 1909. Darmstadt, Germany: E. Merck.

This is a very interesting and up-to-date volume, replete with scientific and practical information on the recent advances in drugs and their application in disease. There are 84 pages devoted to serum therapy and bacterio-therapeutic preparations.

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*Lippincott's New Medical Dictionary.* Edited by HENRY M. CATTELL, M.D. Philadelphia, London and Montreal: J. B. Lippincott Co.

In his preface the editor states that his aim "is to furnish the medical student, the practitioner of medicine, the laboratory worker, and whoever has occasion to use a medical dictionary, with a single volume of moderate compass, and at a reasonable price, which shall attain the ideals of the user in regard to thoroughness, accuracy, perspective and proportion, and general suitability to the year 1910."

That it has been no small task to cull and judiciously select from the vast terminology of modern medicine, to say nothing of the new terms so constantly being added, is obvious, and that the editor has succeeded in doing this, within the eleven hundred odd pages, a careful perusal of the work will convince beyond a doubt. The definitions are concise, clear and accurate. The chief diseases have symptoms, etiology and treatment given; and the drugs, their action, therapeutic use and dose—the latter in both the metric as well as the common equivalent—are enumerated.

Operations, rules, etc., designated by proper names, such as "Macewen's operation," "McClintock's rule," are more fully given and defined in this work than will be found in dictionaries of the same size.

A distinguishing and valuable feature is the system of cross-references used in this volume. The printing of a word in small

capitals means that further information will be found at that place. Most of the important words have their cross references.

Altogether this book will be found to be a valuable addition to the general practitioner's library and of inestimable service to the student.

S. J.

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*Normal Histology.* With Special Reference to the Structure of the Human Body. By George A. Piersol, M.D., Sc.D., Professor of Anatomy in the University of Pennsylvania. 438 illustrations, many of which are in colors. Eighth edition (re-written). Philadelphia and London: J. B. Lippincott Co. Canadian Agent, Mr. Charles Roberts, 608 Lindsay Building, Montreal.

We find this a very comprehensive work on the subject of histology, embracing in all 418 pages. Almost every page is embellished with fine illustrations, a great many of which are colored. The text is in a style which sets forth a full description and is, therefore, not too concise nor yet too elaborate. It will be a splendid text-book for students.

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*Mentally Deficient Children: Their Treatment and Training.* Third Edition. By G. E. SHUTTLEWORTH and W. A. POTTS. Pp. 236. Published by H. K. Lewis, London. Price, 5s. net.

This is the third edition of Shuttleworth's well-known little book; the new matter chiefly concerns social and legal movements on the subject in Great Britain. In view, especially of the interest being taken here in the feeble-minded, this book can decidedly be recommended to the medical profession in Ontario. It is a simple, unpretentious and on the whole accurate, account of the different forms of imbecility, their diagnosis and treatment. Especial stress is laid on the problems of care and education; no attention is paid to morbid anatomy. The book can hardly be considered to rank as a serious scientific production, but is admirably suited as a preface to the subject. Unfortunately it is more than usually insular in its outlook, all the valuable work that of late years has been done on the continent being quite ignored.

E. J.

*Genesis. A Manual for the Instruction of Children in Matters Sexual.* By B. S. TALMEY, M.D. Pp. 149. Published by The Practitioner's Publishing Co., New York. Price, \$1.50.

The writer of this volume is properly impressed with the grave consequences of the prevailing prudery, hypocrisy and ignorance of sexual functions, above all in the medical profession. "Even the professors at our medical schools dare not teach or explain the physiology of sex to their students. . . . The traditions, sentiments and views of a time when sex life was considered sinful, low and bestial, unworthy of human beings, are still in vogue, and schools and universities are dominated by this conventional morality. The bare mention of the subject of sex is, therefore, branded as obscene. The very discussion of this question is surrounded by the gravest difficulties, hedged about by a silence that is criminal. . . . Functions which were formerly discussed with perfect familiarity and directness, with no thought of impropriety or immodesty, as in the Bible and other ancient classics, are now excluded even from treatises on physiology. Thus has prudery succeeded to decree nothing so shameful as sex life, and the function of sex is considered something low, sensual and selfish. . . . Even in the exhortations to purity, the impression is given that the question of sex is unclean, something shameful and sinful."

After this promising introduction one is disappointed to find that the general tenor of the book is practically identical with the current attitude thus pilloried. A great part of the book is concerned with the importance of explaining to young people that any kind of sexual life outside of monogamic marriage is sensationally dangerous to health and ruinous to the soul. The reviewer fails to see any urgent need for a medical propagandism to spread this doctrine, which is so far from novel that we are all strongly imbued with it from childhood up. Much of the rest of the book is fortunately taken up with such topics as the splitting of chromosomes, sporulation, the formation of chromatin reticula, and so on, and is safe to put into the hands of children of the most tender age.

The only part of the book with which we can agree is that urging the necessity of honesty in dealing with young children. The author points out many, though not the chief, of the harmful results of our present lying customs. By the way, it is interesting to have one's ideas confirmed as to the precocity of New York children; according to the author (p. 66) they toddle to their mother with the great question framed as follows: "Whence do babies come from?"

E. J.



*Insanity in Everyday Practice.* E. G. YOUNGER, M.D., pp. 124.

Published by H. K. Lewis, London. Price, 3s. 6d. net.

This is probably the most worthless book on insanity we have yet read, and there are some pretty bad ones. Nothing could better bring home the prevailing lack of knowledge of the subject in the medical profession than the fact that such books as this apparently have a vogue, for this is the second edition of the present one. The following examples are characteristic: Under the heading of Causes of Insanity we find the extraordinary statement that "the opsonic index is low in all forms of insanity"; which opsonic index is not mentioned, nor is any evidence quoted in support of the assertion.

"If a patient believes in his hallucinations or illusions, that patient is insane." Insanity would thus include a large class of hysterics, with a not inconsiderable group of people usually considered normal. But the next sentence to this is still more embracing. "A delusion is a false belief—a belief in the truth of that which is not true. . . . A person who has delusions is necessarily insane." If Father Vaughan had only known this in Montreal he could have flung a much more stinging jibe at the Protestants than merely describing them as "soulless"—it might have been "brainless." Unfortunately the retaliation of *tu quoque* is, according to Dr. Younger's definition, only too ready to hand. If this line of thought is followed up, one reaches the more than solecistic position that everyone is insane except our noble selves.

Dr. Younger is very cautious about the syphilitic origin of general paralysis; it is perhaps not irrelevant in this connection to say that no reference is made to the modern investigations on the subject, to the Wassermann reaction, or even to the existence of the cerebro-spinal fluid. "I cannot help thinking that syphilis is not always necessarily a factor in the production of general paralysis, for I have certainly seen cases where syphilis and alcoholism as causes could almost safely be eliminated (it is a pity we are not told how this feat is performed), and where the only causes have seemed to be overwork, over-anxiety to succeed in life, and curtailed hours of rest. . . . I myself have a strong impression that . . . sexual excess is the most frequent of the subsidiary causes of general paralysis. It is well recognised among asylum officials that the wives of many general paralytics are handsome and attractive women of an erotic type, and it is quite common to speak of such a one as a typical 'G. P's.' wife." (These curious superstitions are quite commonly held by asylum attend-

ants in England. The former one, concerning sexual excess, still lingers in the medical profession, and it is interesting to find that even the latter has not yet died out.)

Depression and hypochondria of a patient with secondary syphilis is described as a syphilophobia (fear of contracting syphilis)! The masterpieces, however, are the sections on "Masturbative Insanity" (sic), and on the "Insanity of Adolescence" (dementia praecox). The three pages on the latter disease—the most frequent and important of the psychoses—are really monumental in their ignorance.

E. J.

# Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

**Medicine:** Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross, Wm. D. Young.

**Surgery:** Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

**Obstetrics:** Chas. J. C. O. Hastings, Arthur C. Hendrick.

**Pathology and Public Health:** John A. Amyot, O. R. Mabey, Geo. Nasmyth.

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**Anesthetics:** Samuel Johnston.

GEORGE ELLIOTT, MANAGING EDITOR

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No. 4

## COMMENT FROM MONTH TO MONTH.

**Toronto's Board of Health and Medical Health Officer.**—It is a good suggestion for Toronto to abandon the present procedure in the appointment of a Board of Health and substitute therefor a board of medical men, but it would be better still to appoint a Board of Health whose composition would be a sanitary engineer, a competent bacteriologist, a practitioner with a good knowledge of public health matters, and a leading general practitioner. Failing this, Toronto would likely be better served by a Medical Health Officer with an untrammelled hand than to be associated with a Board of Health, which apparently in a matter so vital to the city's interests seems to be totally ignored, when the question of the appointment of a Medical Health Officer is before the powers that be.

By the medical profession it has long been considered that the present Board of Health was the Medical Health Officer. Such being the case, there is no sane reason for its further existence as at present constituted.

It is apparent also that Toronto has grown to the extent that an assistant should be provided to the chief health officer, who in time of absence or sickness could discharge the duties of chief pro tempore.

Now that reorganization of the Health Department seems essential, a Board of Health of the above-mentioned composition would be of the very best advantage to the city. Unwise retrenchment in municipal health matters has quite surely produced a good crop, and the blame should be placed where it belongs.

Dr. Sheard has since his reappointment been the subject of considerable newspaper-baiting; but Toronto elects municipal representatives to conduct the affairs of the city, although some people "behind their ink-pots" seem to think they are better qualified to make appointments than the people's representatives. Representative government will go smash if the medical profession is to make appointments to the Board of Health, engineers of the city consulted when a city engineer may have to be appointed, and a city treasurer at the suggestion of the bankers and brokers of the city.

Toronto is to be congratulated on securing Dr. Chas. J. Hastings for Health Officer.

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**Is Acute Anterior Poliomyelitis Becoming a Dangerous Epidemic?** Flexner, of New York, has practically proven that this disease is due to a minute germ, and that those who have recovered recently possess a serum, which in all probability would cure the disease in an early stage.

The infection occurs sporadically, and usually is confined to June, July, August and September, but unfortunately there occurs from time to time an actual epidemic, with a death rate running upwards from 5% and leaving a terrible list of maimed and helpless sufferers to fill our Homes for Incurables.

Such epidemics have occurred in all parts of the world, but more recently in Sweden and New York, while last year Montreal had a number of cases, and this summer over 150 occurred in the vicinity of Hamilton.



In Toronto during the last few weeks, fourteen cases with four deaths have occurred in connection with the hospitals; *and where is the record to show* how many have been treated in private practice? Also, but of this I cannot warrant the correct figures, there are 25 stated cases in many of the villages and towns near the city.

During the past year the Board of Health have made splendid efforts to stamp out rabies, a disease from which very few people have fallen victims; and rabies is in many ways a sister disease to acute poliomyelitis, and yet little attention has been paid to the latter with its hosts of sufferers.

Truly, indeed, the disease is notifiable and the law calls for isolation, but visit the hospitals of the city and see the "isolation" and the "disinfection" and the "notification," and you will realize that we are awaiting quietly an epidemic, whether it occurs this year or on the next visitation of the infection. Here is the law:

#### EPIDEMIC CEREBRO-SPINAL MENINGITIS AND EPIDEMIC ANTERIOR POLIOMYELITIS.

*Regulation 8.*—Every case of epidemic cerebro-spinal meningitis and epidemic anterior poliomyelitis shall forthwith be reported to the Secretary of the local Board of Health. The patient shall be isolated. The discharges from the nose, throat and mouth of the patient must be received on cloths and burned at once. After death or recovery of the patient all personal clothing and bedding, together with the contents of the room and the room itself, must be thoroughly disinfected under the personal supervision of the Medical Health Officer. In case of death a public funeral or viewing of the remains of the deceased must be forbidden. Every doubtful case of cerebro-spinal meningitis must be classed as of epidemic type and cared for accordingly until proved to be otherwise.

While Flexner is working on the probable actual germ in his laboratories, it is definitely the duty of the Provincial Department to appoint men who shall endeavour to discover in these numerous isolated cases a common means of infection, and thoroughly sift for each individual case every detail that may help to complete the

knowledge of the methods of infection outside the individual—and to accomplish this, let me urge the Provincial Board of Health to read the following paragraph:

#### INFANTILE PARALYSIS.

At the Congress of American Physicians and Surgeons held at Washington in May last, the subject of epidemic poliomyelitis was discussed at a joint meeting of the American Orthopedic and American Pediatric Societies. The following resolution was adopted: "It having been shown by recent epidemics and investigations connected with the same that epidemic infantile spinal paralysis is an infectious communicable disease that has a mortality of from 5 to 20 per cent., and that 75 per cent. or more of the patients surviving are permanently crippled. State boards of health and other health authorities are urged to adopt the same or similar measures as are already adopted and enforced in Massachusetts for ascertaining the modes of origin and manner of distribution of the disease with a view of controlling and limiting the spread of so serious an affection." A committee, with Dr. Robert W. Lovett, of Boston, Massachusetts, as President, and Dr. Irving M. Snow, of Buffalo, New York, as Secretary, was appointed to urge the various State and municipal health authorities to take up the work of investigation of the various foci of epidemic poliomyelitis, to study its epidemiology, and to instruct the public that the disease is at least mildly communicable.

*Academy of Medicine "Wake Up."*

G. W. H.

## News Items

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DR. J. PRICE-BROWN has moved to 28 College St., Toronto.

SIR JAMES A. GRANT, Ottawa, was recently presented with the freedom of Inverness, Scotland.

THE linch-pin of effective advertising is "copy." Doctors should inspect the advertising to see the copy is O.K.

DR. HELEN MACMURCHY, Toronto, and Dr. Wilmot Graham have been appointed medical inspectors of the schools of Toronto.

DRS. H. J. HAMILTON, Chas. J. O. Hastings, Augusta Stowe-Gullen, Toronto, and Dr. Wm. Burt, Paris, have been elected to the Senate of Toronto University.

A NICE country medical practice in village of 200, unopposed, with nice property, is for sale near London. Only \$600 cash required down. For further particulars apply this office.

The medical journal is the special medium to reach the medical profession. Our advertisers call the attention of the medical profession to their advertisements. Look them over. It will pay you.

THE British Columbia Medical Association has elected the following officers: President, Dr. O. Weld, Vancouver; Vice-President, Dr. Chas. E. Doherty, New Westminster; Secretary, Dr. A. S. Monro, Vancouver; Treasurer, Dr. James D. Helmcken, Victoria.

DR. E. A. McCULLOUGH has resigned from the superintendency of the London Sanatorium for Consumptives and returned to 141 Farnham Avenue, Toronto. He will devote his attention to the diagnosis and treatment of laryngeal and pulmonary tuberculosis.

CANADIAN MEDICAL ASSOCIATION.—The *Montreal Star* has announced that Morang & Co., Toronto, have made arrangements with the C. M. A. to publish the *Journal* of the Association, and that the *Montreal Medical Journal* will cease publication on the appearance of the new journal.

DR. W. J. WILSON, Toronto, is in England.

DR. EVERETT G. SMITH, medical missionary, India, is visiting in Toronto.

DRS. J. M. MCCALLUM and Samuel Cummings, Toronto, have gone to Europe.

DR. JOHN A. GUNN has resigned the superintendency of the Winnipeg General Hospital.

DR. R. O. SNIDER died recently in Toronto, aged 47 years. He was of the class of '95, Trinity Medical College.

DR. W. H. B. AIKINS, who had just moved into his new home on Bloor Street West, Toronto, entertained Dr. Wickham, of Paris, on the evening of the 29th of September.

DR. M. K. KASSABIAN, one of the distinguished X-ray experts of America, died recently in Philadelphia, a victim of the X-rays he constantly used. His recent book on the subject will shortly be reviewed in these pages.

QUEBEC College of Physicians and Surgeons has elected the following officers: President, Dr. Normand, Three Rivers; Vice-Presidents, Dr. A. Simard, Quebec; Dr. H. A. Lafleur, Montreal, and Dr. Arthur Lessard, Granby.

DR. G. STIRLING RYERSON, Toronto, has recently returned from Paris, where he has been investigating radium in the treatment of disease. Dr. Ryerson purchased a considerable quantity of radium for employment in the treatment of diseases in his specialty.

THE following resolution, re Dominion Registration, was adopted by the Alberta Medical Association at Banff, Aug. 11th: "Your Committee on Legislation beg leave to recommend that in the opinion of this association it would be in the best interests of the medical profession, not only of this Province, but of the whole Dominion, that Dominion Registration be brought about as soon as possible by the adoption of the Canada Medical Amendment Act, 1910. Carried."

DR. LOUIS WICKHAM delivered an address before the Toronto Academy of Medicine on the evening of the 30th of September.



The subject was radium therapy, and the address was accompanied with lantern demonstrations. Dr. A. A. Macdonald, the President, occupied the chair, and a vote of thanks was moved by Dr. N. A. Powell, seconded by Dr. Wallace, Hamilton. From out of town there were present Drs. Peter Stuart, Guelph, and Dr. Hoig, Oshawa, and others.

THE Ontario Government has issued a special report on infant mortality, prepared by Dr. Helen MacMurchy, Toronto.

INFANT mortality is the greatest problem of preventive medicine.

IN 1907 the total number of deaths in Ontario was 33,502. Infant mortality was 29 per cent. of this.

TORONTO has an infant mortality of 20 per cent.

The twenty-eighth annual report of the Ontario Board of Health has been issued for 1909.

## Correspondence.

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*To the Editor of the DOMINION MEDICAL MONTHLY:*

Dear Sir,—Doubtless you have long ago formed your opinion as to the merits of Esperanto, the international language. I hope that it is favorable; but as there is much irresponsible criticism of Esperanto, especially on occasion of the recent international convention in Washington, I want to offer an opportunity for every thinker to judge for himself. I have had prepared 100,000 brief grammars of the language in pamphlet form, and will send one free to any person who is sufficiently interested to ask for it, enclosing stamp for reply. I think it really due to this great movement for an international auxiliary language, which now embraces fifty nations in its scope, that you publish this letter, so that your readers may have the opportunity of judging for themselves.

Very cordially yours,

Arthur Baker,  
Editor Amerika Esperantisto.  
700 E. Fortieth St., Chicago.

P.S.—If at any time you desire late and authentic information concerning Esperanto, command me.—A. B.

## Publishers' Department

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IT IS TIME TO PUT ASIDE FADS AND FALLACIES ABOUT UNDERWEAR.—Many materials have been used for underwear, and much misery and ill-health caused because of the fallacious saying that “any material” is good enough for the skin. What underwear do you wear? Is it wool? Wool that allows perspiration to dry on the skin—that gets closer in texture and more unpleasant to wear every time it is washed—wool that weakens the skin and renders it over sensitive to the least current of air, wool (or flannels—being the same thing), which, instead of being protective, is the most frequent cause of catarrh, bronchitis, pneumonia, rheumatism and other ills. It is no wonder flannel wearers never know the feeling of life and glow of health that is the daily joy of the wearer of the right kind of undergarments. If you would test the absorbing value of wool, float a strand gently on a glass of water. It will remain dry on the surface of the water—it does not absorb moisture readily. Do the same with linen. Watch how easily it will suck up the moisture—the unpleasant perspiration—off your skin. Think how easily it is washed, and remember that every wash makes it softer and more pleasant to wear, just as surely as every wash hardens and “closens” wool. Many years ago Dr. Deimel recognized the value of linen and made an underwear fabric from it—a fabric so woven that it is comfortable and protective in all kinds of weather, yet absorbs and carries off all perspiration thoroughly and speedily. Unlike ordinary pure linen, which is cold to the touch, this Deimel fabric is woven of a composite thread of fine linen and abassi yarn and skillfully twisted together in the Deimel Spinning Works. In this way the chilliness of ordinary linen is entirely done away with. On account of its genuine protection and safety in all climates, its great absorbing and drying powers, its agreeable feeling to the skin, its absolute cleanliness, its great

durability, and the fact that it can be washed in boiling water and soap without the least shrinking, the Dr. Deimel Underwear is the ideal garment for the body. Its progress has been remarkable, having gained millions of wearers since it was first introduced in 1894. Dr. Deimel Linen-Mesh Co., 416 St. Catherine St. West, Montreal.

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A VALUABLE AND SEASONABLE REMEDY.—To reduce fever, quiet pain, and at the same time administer a laxative and tonic is to accomplish a great deal with a single tablet, and we would especially call attention to the wide use of Laxative Antikamnia & Quinine Tablets in chronic or semi-chronic diseases which begin with a severe "cold." Among the many diseases and affections which call for such a combination, we might mention la grippe, influenza, coryza, coughs and colds, chills and fever, and malaria with its general discomfort and great debility. Attention is particularly called to the therapeutics of this tablet. One of its ingredients acts especially by increasing intestinal secretion, another by increasing the flow of bile, another by stimulating peristaltic action, and still another by its special power to unload the colon. When the temperature of the body is above normal, conditions are especially favorable for germ development. It is a matter of every day observation that a simple laxative is often sufficient to relieve the most serious complications.—*Archives of Pediatrics*.

---

MOIST HEAT.—Thermotherapy in inflammatory conditions seems to prove most effective when applied in the form of moist heat. The relaxation of pressure by infiltrated and swollen tissues upon nerve endings, as experienced by the relief of pain, specifically proves this. The advantages of moist heat where indicated are generally acknowledged. The method of its application from professional preference seems to be in the form of Antiphlogistine. By this method a high temperature can be maintained in contact with



the affected part for hours without exposure to the patient for redressing. The superior advantages of Antiphlogistine over other forms of moist dressings, such as poultices, hot packs, etc., are that it is easily applied, retains its heat for hours, is antiseptic in action, and above all produces satisfactory therapeutic results.

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I do not hesitate to declare myself a friend of Resinol Ointment and Soap. I have used them with splendid results in herpes, eczema, psoriasis, and pruritus. I shall continue to recommend and prescribe them.—Dr. Jose P. Pimental, Acambaro, Mexico.

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POST-GRIPPAL ASTHENIA.—Of all the acute infections to which human flesh is heir, none seems to be followed by such general prostration as la grippe. As the Irishman aptly described it, it is “the disaise that keeps ye sick for a month after ye get well.” The general devitalization that ensues after the subsidence of the acute symptoms appears to be entirely out of proportion to the severity of the original attack. It is therefore distinctly the part of clinical wisdom to inaugurate a vigorous reconstructive campaign as soon as the febrile movement subsides. Plenty of fresh air, an abundance of nutritious but easily digestible food, and regular doses of Pepto-Mangan (Gude) constitute a trio of therapeutic measures of marked benefit. If the heart action is unduly weak, or if the prostration is more than usually pronounced, an appropriate dose of strychnia added to the Pepto-Mangan is of considerable additional service.

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THE MANUFACTURE OF ANTITOXIN.—In the treatment of diphtheria the physician of to-day uses antitoxin as a matter of course. It is his first expedient and his last resort. He believes implicitly in its efficacy. But does he understand and appreciate all that is

involved in the production of that antitoxin—the scientific knowledge, the skill, the caution, the minutiae of detail? This thought is forced upon the writer through the perusal of a recent publication of Parke, Davis & Co., which deals in part with the subject of antitoxin manufacture. Here is a specimen chapter: "In the selection of the horses which are to act as the living laboratories for the production of the antitoxin we apply not commercial or academic knowledge merely, but, what is more to the point, veterinary skill. The animals must be vigorous and healthy. They are carefully examined, their temperature noted for several days, and the presence of glanders excluded by the delicate mallein test. It is the blood-serum of these animals that is to be injected into the patient later on, and no precaution can be regarded as extreme which contributes the slightest positive assurance of its purity. Not only must the horses be in good general condition when inoculated; they must be kept so. They are fed, stalled, groomed and exercised for no other purpose than to maintain to the full their self-protective, antitoxin-producing powers. Thirty miles removed from the noise, smoke and dust of the city is our stock farm, equipped with model stables and supervised by expert veterinarians. Here, at Parkedale, on more than three hundred acres of sunny slopes, at an altitude of six hundred feet above the level of the Great Lakes, live the horses which we employ in serum-production. Amid these favorable surroundings they maintain the physical condition so essential to satisfactory service as serum-producers. These are preliminary considerations. Young, healthy, well-kept horses, indispensable as they are, would be of little use in the elaboration of a reliable antitoxin unless the work of injecting them with toxin were conducted accurately, aseptically, systematically, and throughout a period long enough to allow physiological reaction up to the limit of attainable immunization. We have horses enough, so that there is no occasion to be in a hurry with any of them; the exact length of time required for complete reaction is determined in each individual instance by carefully scheduled observations. It goes without saying that in the preparation of the toxin and its injection into the horses, as

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Prof. Philemon E. Hommell, Jersey City, says, "Glycerophosphates have evidently come to stay; they are frequently prescribed in the treatment of neurasthenia \* \* and seemingly give desirable results; they should obtain official recognition in an eligible form."

—Merck's  
Report for May,  
1910.

well as in obtaining the blood serum, the most rigid bacteriological technique is maintained. The methods we employ agree substantially with those of Roux, Aronson and Behring, and are from first to last in charge of experts. The varying susceptibility of different animals, whether guinea-pigs or horses, to the diphtheria poison; the more or less rapid physiological reaction; the variation in strength of the antitoxic serum from different horses; the absolute purity of the finished product—these are all important and delicate questions, demanding for their determination a high degree of skill and scientific accuracy of observation. These qualifications, in our judgment, outrank all other considerations in the work of producing a reliable antidiphtheric serum.” The foregoing has reference to but a single step in the process of serum production, and affords but a hint of the safeguards with which Antidiphtheric Serum (P., D. & Co.) is hedged about at every stage of its manufacture—conditions which enable the company to guarantee the purity and potency of its antitoxin.

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I am pleased to inform you that I used Resinol Ointment and Soap with most gratifying results in a severe case of eczema of the face, the trouble being totally cured in a remarkably short time. I am glad to recommend these preparations.—Dr. Angel E. Rivera, Naguabo, Porto Rico.

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MATERNITY HOME.—Mrs. Jas. Brennan, 354 Brock Ave., Toronto, a competent and capable nurse, has a nice quiet home for ladies during accouchement. This home is registered, and arrangements can be made for adoption of infants if required. Charges are moderate.

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THE SURGERY OF THE SPLEEN.—From our inability to recognize diseased conditions in their early stages, says W. J. Mayo, Rochester, Minn. (*Journal A. M. A.*, January 1), the surgery of the spleen has necessarily been of a destructive character. Recent in-





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vestigations lead to the surmise that many of the anemias and associated blood states may ultimately be best treated by operative procedure on the spleen and other blood-forming organs. He describes the anatomy and known functions of the spleen, before birth and during life, and says that its protected situation, overlain by the other important organs, makes it exceedingly difficult to ascertain moderate enlargements. He questions our ability to mark out accurately any moderate enlargements by percussion, but he believes that surgeons can do a great deal to increase our understanding of conditions by routine examinations of the organ during abdominal operations, when an altered blood state exists. He puts the classification of splenic enlargements into three classes: First, leukemias, in which the spleen produces white corpuscles of the ancestral type, a probable reversion to the fetal form of blood. Second, splenic anemia, with a diminution and change of character of the red blood corpuscles, which are pathologically destroyed to some extent. Third, splenomegaly, an enlargement without blood changes, and only mechanically affecting the general health. In addition to these classes there are two conservative types of enlargement of the spleen. One, the compensatory splenic hypertrophy, and second, the enlargements after infectious diseases. Unless the spleen is more or less movable its surgical approach is difficult. The Mayos have usually used an incision through the left semilunar line, carrying, if necessary, the upper end along the costal margin to the ensiform cartilage. He has not found Myer's procedure of cutting the costal cartilages necessary as yet, but in some cases a left transversal incision joining the longitudinal is convenient. In advanced disease, adhesions, especially to the diaphragm, are occasionally difficult to separate until after the splenic pedicle has been secured. To grasp this vascular pedicle temporarily in rubber-covered elastic clamps is the most important step in the operation if the vessels are fairly sound. This must be very carefully done on account of the delicacy of the splenic vein. To grasp the pedicle securely, the organ should be turned over, at least enough to grasp the vessels in the hand. With the fingers and blunt dissection, a passageway is made around the pedicle, and a clamp applied and tightened enough to control the circulation

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until the spleen can be entirely separated and delivered outside the wound. If extirpation is the object of the operation, the pedicle can be secured at any time after the application of the elastic clamp, which is applied as close to the root as possible, so as to leave distal to it ample space for ligation. If partial resection is to be done, temporary compression of the pedicle seems harmless, if there are no gross vessel-wall changes, and after the use of the clamp the desired amount can be resected and the hemorrhage controlled by buttonhole catgut suturing with a round needle, as in liver resection. "It has been shown experimentally that reduction of the artificial supply by ligation results in atrophy of the spleen, and so long as the veins are left intact, necrosis does not occur. If the splenic artery divides in the hilum, ligation of branches would appear to be an active competitor of partial splenectomy. We have not found the marked alterations in the walls of the blood vessels which have been shown to be often present at post-mortem, and which probably represent a terminal condition." Mayo analyzes his experience with thirteen cases, three conservative operations and ten splenectomies. Brief histories of all these cases are given. The article is illustrated.



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## Original Articles

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### COLON BACILLUS INFECTION OF GENITO-URINARY TRACT IN INFANCY.

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BY ARTHUR L. KENDALL, M.D., VANCOUVER, B.C.

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CASE I.—I wish to report two cases of colon bacillus infection of the genito-urinary tract in infancy. Both these cases occurred about the same time.

The first was in a baby one year of age.

This was a child who for no apparent cause had been running a temperature of about 103 degrees for more than a week. The respiratory tracts and the circulatory system were negative. There was some digestive disturbance, as evidenced by occasional vomiting, disinclination for food and constipation.

A course of calomel and castor oil corrected these symptoms, but the temperature continued.

An examination of the urine several days after I had seen the case resulted in the finding of a large amount of pus in the urine. Dr. McKee, who examined a specimen of the urine, reported that he had obtained a pure culture of colon bacilli from it. I was only able to follow this case for two weeks afterwards, and I regret that I cannot give a fuller detailed account of it.

During these two weeks the pus almost entirely disappeared, the temperature dropped to normal, and evidently the child was as well as ever.

The treatment consisted in giving large doses of urotropine and boric acid.

The infection was evidently in the pelvis of the kidney, for the character of the epithelial cells were those of the pelvis.

CASE II.—The following is a report of a colon bacillus invasion of the kidney in an infant, age four months.

I believe that the infection in this case was present for some weeks before operation as a pyelitis which was unrecognized.

*Family history.*—Baby is the youngest of five children, who are all living and very healthy. Father and mother are living and well. No history of any disease in the relations that can have any bearing on the present history.

*Personal history.*—Was born in Vancouver and has not lived elsewhere. The mother has been unable to nurse it from birth and child has been fed on a variety of artificial foods, on none of which it has flourished. There has always been a great deal of indigestion, with a great deal of flatulence. Child has been constipated and seemed to have had a greater inability to digest proteid food than the ordinary baby.

At the age of two months food was changed to whey and cream, to which lime water and sugar was added. On this diet the child improved somewhat and gained in weight, but did not gain and improve as it should have done.

*Present illness.*—I was called to see the child on the 4th of September, 1908. He had been showing signs of not being well for two or three days previous to this, but had not shown any alarming symptoms till the day of the 4th.

*Present condition.*—Child is undersized, weighs about ten pounds, has the appearance of being intensely ill. Seems to be in a good deal of pain, cries a great deal, and is very fretful. There is marked anemia present. Child lies with the eyes partly open. Temp. 104, pulse 140. Skin is dry and harsh.

*Nervous system.*—Beyond being very restless and crying out from apparent pain there is nothing to point to any nervous lesion. Sensation is normal, the pupils are equal and respond to light normally. There is no sign of any weakness in the muscular system. Pain seems to be greatest, as judged by the sharp cries, immediately before urination.

*Circulatory system.*—Pulse 140, regular, very full and tension rather high. Physical examination of the heart shows no lesion, and the heart boundaries are normal.

*Respiratory system.*—Physical examination shows nothing pathological.

*Digestive system.*—There has been no vomiting. A dose of calomel followed by castor oil produced several movements, which were apparently normal. There was a disinclination to all food,

but the whey and cream that was given was apparently well handled.

The abdomen was very much distended with gas. S.S. enema with turpentine succeeded only in part in removing this. The most of the distension seemed to be in the colon.

Palpation elicited very little information. There was a generalized tenderness, but the point of greatest tenderness seemed to be in the region of the spleen and the left kidney, as deep palpation here seemed to give more pain to the baby than elsewhere.

*Genito-urinary system.*—The child always screamed before passing his urine. There was a marked phimosis. Tenderness of the left kidney was noticed as stated above.

The urine was acid, marked reaction for albumin. The microscopic examination showed a little blood and a tremendous number of pus cells. Dr. McKee made an examination of the urine and reported that he got a pure culture of colon bacilli from it.

On the third day there was such a serious condition of affairs present that death seemed to be pending. Temperature was 105, pulse 160, child partially comatose, and with these conditions present I gave a few whiffs of ether and examined the abdomen. The right kidney was palpable and apparently normal. The left seemed to be enlarged to two or three times its normal size, and deep palpation under the light anesthesia gave evidence of pain.

With these facts at hand I advised the mother to allow me to operate.

Operation was carried out an hour later, with the assistance of Dr. Nicholson, at the Vancouver General Hospital, under light ether anesthesia. My incision, which was a posterior one, disclosed a kidney almost as large as in the adult. It was intensely congested, being almost black in color. I delivered the kidney, placed a large-sized chromic ligature about the pedicle, and cut the kidney away. The wound was closed up with a small drain left *in situ*. The whole time consumed in the operation was ten minutes.

In four hours after the operation the temperature was normal and remained so during convalescence, which was uninterrupted. In twenty-four hours there was neither pus nor blood in the urine, and there was a normal amount being secreted.

Two years after the operation I examined the child, and during that time he has remained healthy and has grown as an ordinary child would.

This case is interesting for two reasons: In the first place I can find no record of an operation having been done for a similar condition in a young child, and in the second I can find no record of

a successful nephrectomy having been done for any purpose in a child as young.

The macroscopic appearance of the cut kidney showed the pyramids and the cortex intensely congested and soft, while in five or six places throughout the kidney substance there were round areas about the size of a marble, which were lighter in color and firmer in consistence than the surrounding parts. I thought at the time that these were foci of rapidly growing sarcoma, but Dr. Gillies, who examined several slides from them, reported that they were areas packed with white blood cells, and that they were about to break down into abscesses.

One thing that may be well worth reporting is the method that I use in obtaining specimens of urine from a young child. The very difficulty in obtaining urine from this class of patients I believe leads to a great many errors in diagnosis, and if the urine were examined more frequently that there would be less slashing and mutilation of the gums in the supposition that that long-standing "boggy," the teeth, is the cause of all the trouble in infants that a careless examination fails to reveal.

The common method to obtain urine is in male children to fasten a test tube to the penis and await developments, and in female children to place about the vulva a pad of absorbent cotton and express the urine from it. Anyone who has tried these methods will condemn the former as being difficult, clumsy and inefficient, and the latter for introducing too much extraneous material into the urine.

The method I have used is to choose a time from one and a half to two hours after the child has urinated and then to introduce into the rectum one or two ounces of cold water. This should be introduced as rapidly as possible by means of a simple bulb syringe. Almost invariably I have found that a stream of urine will be thrown from the urethra, which can easily be caught in a vessel.

## A CASE OF TUMOR OF THE BRAIN.

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RY GRAHAM CHAMBERS, M.B., AND GEO. A. BINGHAM, M.B.,  
Associate Professor of Clinical Medicine,      Associate Professor of Clinical Surgery, University of Toronto :  
University of Toronto : Physician,      Surgeon, Toronto General  
Toronto General      Hospital.

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R. P., aged 27, female, was admitted to Toronto General Hospital on Dec. 18th, 1909.

*Complaint.*—(1) Attacks during which patient became numb in left side; (2) Headache; (3) Vomiting; (4) Weakness of left arm and leg and inability to walk; (5) Dimness of vision with occasional double vision.

*Family History.*—Uneventful.

*Personal History.*—Born in Plattsville, Ont., and has always lived in Ontario. Attended school until fifteen years of age, good student. Did housework in the country till six years ago, when she came to Toronto, where she has been employed as bookkeeper. Worked up till three weeks ago. Surroundings have always been comfortable and hygienic. Drinks tea moderately. Uses no alcohol.

*Past Illnesses.*—Had measles and whooping cough when a child; inflammation of the lungs when thirteen years of age (lasted one week). While attending school suffered from onesided headaches associated with vomiting, which were diagnosticated migraine. Of late years these attacks have been infrequent. During the last ten years patient has had leucorrhea. No evidence of hereditary or acquired syphilis.

*Present Illness.*—The present illness began about a year and a half ago, with ill attacks of the following nature: Patient first felt in the left "side" a numbness which travelled down to the thigh and leg, and then up again, the left arm and down to left side of tongue. At the same time the left side of the face would twitch. Patient was dizzy during the spell. The attack would last from 10 to 15 minutes. These attacks were repeated for a while once a week, later once a day, and still later once a month. During the last two months patient had been free from the attacks. These attacks did not interfere with her work. Only once, about three months ago after an unusually severe attack, was she compelled to stop work for the day.

The headaches and weakness of the left side began about six months ago. Until three weeks ago the headaches were not severe.



They were not constant and were felt in the front and sides of the head. During the last three weeks they have been very severe, worse at night, throbbing in character. They are felt in all parts of the head, but most marked in the mid and right frontal regions, just above the eyebrow.

The weakness of the left side was first noticed in the leg. The toes began to drag, and the knee became weak. Then the arm became affected. The weakness in the arm began in the upper part which has always shown a greater degree of paralysis than the lower. Patient has never observed any weakness in the muscles of her face. Until three weeks ago was able to walk. Since that date the weakness in left arm and leg has rapidly increased.

The vomiting has only occurred during the last three weeks. The vomiting bears no relation to food and occurs at irregular intervals. It is sometimes preceded by nausea. Severe headache is usually associated with vomiting.

The dimness of vision has been observed during the last three months, but only during the last three weeks has it been marked. The double vision, which is not constant, began about three weeks ago.

*Present Condition.*—Patient, who appears to be well nourished, lies in the dorsal decubitus, with left fore arm on the chest. The eyes are closed most of the time. Expression is weary and somewhat pained. Patient is conscious, answers questions readily and intelligently, but appears to tire easily. The skin is dry and slightly scaly. Its color is good. Capillaries over malaris are visible. Hair is thin, but long. The eyelashes are long. The left arm and leg show atrophy. The left arm measures half inch less in circumference than the right, and the left leg two inches less than the right. The left shoulder droops. The face appears symmetrical, but the tongue goes out slightly to the left.

*Nervous System.*—The subjective symptoms are: Headache, vomiting, double vision, dimness of vision, weakness of left arm and leg and occasional twitching of left leg. Patient is unable to walk. These symptoms were considered in history of illness.

Patient is intelligent; memory good; conscious but dull; eyes closed when not disturbed; easily fatigued and slightly irritable.

*Cranial Nerves.*—All normal except the optics and left sixth. Both optics show neuritis ("choked" disc), which is more marked on the left side. The left external rectus is weak.

*Eyes.*—Left external rectus weak, which probably accounts for history of diplopia. No squint. No hemianopsia. Pupils somewhat larger than normal. Both react to light and accommodation. Double optic neuritis. Field of vision somewhat contracted.

*Motor Functions.*—No apparent weakness of facial muscles. Tongue protrudes slightly to the left. The left arm is paralyzed, slightly atrophied and spastic. The paralysis of the arm is complete, that of the forearm and hand marked but incomplete. Patient is able to slightly move her fingers. The left leg is weak. Patient can flex and extend thigh, but is unable to move her leg, foot or toes. The respiratory movements on left side appear slightly less than those of right.

#### SENSORY FUNCTIONS.

Sensations all normal except possibly that of heat, which appears sluggish in outer part of left leg.

*Reflexes.*—Cutaneous: Plantar, normal on right; Babinski's sign on left; Abdominal, not elicited; Epigastric, not elicited; Scapular, not elicited. Deep: Patellar, Clonus on left, increased on right; Achilles, Clonus on left, increased on right; Biceps, Triceps, Periosteal, much increased on left, increased on right.

*Organic.*—Deglutition, defecation and micturition normal. During the last three weeks patient has had slight difficulty in retaining urine when bladder is full.

*Vasomotor and Trophic Changes.*—Tache cerebrale is marked. Skin is very dry and scaly. Cerebro-spinal fluid, pressure is 300 mm. (water). Composition is normal.

*Digestive System.*—Disagreeable taste. Appetite good. Tongue heavily coated, red at edges and tip. Nausea and vomiting. The vomiting is not always preceded by nausea and is sometimes projectile in character. It bears no constant relation to the taking of food. With exacerbations of headache the vomiting is worse.

*Respiratory System.*—Normal except slightly deficient expansion on left side of chest.

*Cardio-Vascular System.*—Normal.

*Cutaneous System.*—Skin is very dry and slightly scaly. Tache cerebrale marked.

*Genito-Urinary System.*—Normal except leucorrhoeal discharges.

*Diagnosis.*—Tumor of the upper right ascending frontal convolution. This would account for all the symptoms, the affection of the left abducens being due to pressure.

*Medical Treatment.*—Potassium iodide, gr. XL., three times a day.

*Progress Notes.*—Dec. 19, 20, 21, patient about the same; Dec. 22, internal squint of left eye more marked; Dec. 23, twitching in left leg for 15 minutes. Motor power in left arm and leg is weaker. Patient can scarcely bend fingers. Headache is very severe. Urine

passed involuntarily; Dec. 24, 25, condition about the same. Much vomiting and severe headaches; Dec. 27, condition worse. Cannot move fingers. Slight movement at knee. Patient transferred to surgical ward and prepared for operation. Slight flexion in toes of left foot present; Dec. 28, headache is severe this morning. Urine passed involuntarily. At 11 a.m. patient was operated upon by Dr. George A. Bingham.

*The Operation.*—An osteoplastic flap, including scalp and cranium, was turned down exposing the motor area on the right



side. After incising the dura a tumor as large as a hen's egg presents itself, in the upper part of the ascending frontal convolution and encroaching upon the superior and middle frontal convolutions. This was rapidly dissected out of its bed; and the hemorrhage, which was free, was readily controlled by pressure. Some gauze packing was left in situ. The flap was restored to its position and the wound dressed in the usual manner. At 12.30 the patient

returned to ward. The pulse was not palpable. 40 oz. of normal saline with half a drachm of adrenalin (1-1000) was given interstitially. This was repeated twice at four hours' interval. Strychnine, 1-30 gr., every three hours also ordered. At 1 p.m. patient restless and given 1-8 gr. of morphine. At 3 p.m. pulse palpable.

*Pathological Report.*—Microscopical examination showed the tumor to be an endothelioma.

Dec. 29.—Patient is rational. Feels sore all over body, but has very little headache. Motor and sensory functions and reflexes of left arm and leg the same as before the operation. Lower left facial muscle a little weaker than the right. Tongue, when protruded, goes slightly to the left. Pulse rate 126. Tension increasing. Outer dressing stained.

Dec. 30.—R. 22, P. 120, T. 99°. Pain in right side of neck. Slight headache. Can move left leg a little, but cannot move arm or hand. Vision improved. No diplopia. Wound dressed and gauze removed.

Dec. 31.—Patient improved. No movement in arm.

Jan. 1.—External rectus of eye improved. Pupils equal and respond well to light and accommodation. Discs show no obvious change since Dec. 28th.

Jan. 2.—Patient much improved. Patient has a little power in deltoid. Patient can flex and extend the thigh, but cannot move foot or toes.

Jan. 3.—The movement of leg improved. Flexion, extension, abduction and adduction of thigh present. Can flex and extend leg, but cannot move toes. Patient can contract biceps, triceps and deltoid. Very slight movement in thumb, but no movement in fingers.

*Sensations in Hand.*—(1) touch; (2) heat and cold, normal; (3) pain, normal; (4) smoothness, roughness and hardness, present; (5) shape, absent; (6) softness (cotton wool), absent; (7) moisture, absent; (8) weight, absent; (9) position of fingers, absent.

Jan. 4.—Patient is improved. Movement in thumb is increased, but no movement in fingers or toes.

Jan. 5.—Wound dressed.

Jan. 6.—Vision improved. Can move fingers slightly, but no movement in toes.

Jan. 7.—Movement in all parts except toes.

Jan. 10.—Slight movement in great toe. Marked improvement in mobility of arm and leg, sensations normal. Deep reflexes of left arm and leg are increased. On left side ankle clonus. Babin-ski's sign present. Flexion but no extension of fingers.

Jan. 22.—Patient sat up to-day. Movements of arm and leg much improved. Extension of fingers present. Vision good. Occasional diplopia. Reflexes the same.

Feb. 7.—Fundi clearing. Disc margins clear. No diplopia. Patient much improved.

Feb. 27.—Patient discharged. Walks fairly well, but slightly weak in left side. In left arm and leg the deep reflexes are increased. Ankle clonus and Babinski's sign present on left side.



## MEDICAL THOUGHTS, FADS, FANCIES AND FOIBLES

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BY JAMES S. SPRAGUE, M.D., PERTH, ONT.

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The American Medical Association, some few years since, made an investigation of conditions concerning the one hundred and sixty medical colleges of the United States. This report states several facts or conclusions which recently, by a more careful study, and by Mr. Flexner, for "Bulletin Number Four" of the Carnegie "Foundation," are fully endorsed and more fully depicted.

When one considers the professional training and ability of those with whom Rush, McDowall, Mott and the immortal names of the seven doctors whose signatures are found attached to the Declaration of Independence, it is a sad reflection that their descendants, in so many instances, have allowed the establishment of medical colleges—of which several are really stock companies or "concerns," and falsely stated as possessing university federation and support; whose standards are very uneven; whose number is greater than is found in all the countries of Europe combined, and of which only fifty per cent., the report states, are sufficiently equipped to teach modern medicine. Of the eighty remaining schools thirty per cent. "are doing poor work," and twenty per cent. are "unworthy of recognition." Since the publication of the Report on Medical Education of the A. M. A. we have before us, as stated, "Bulletin Number Four"—a large volume—and its "price" (seventeen cents) is no excuse for you not to possess one or more copies—that is, if you are interested in reforms and in love with our profession, and deplore the sad condition in which unscrupulous men have disgraced medical colleges and medicine—prostituting the words, "university," "doctor," "professor," "medical college," and conferring "side show" degrees of "D.D.S." and "Pharm. Bach." under a cheap charter and under the same roof—heedless of national disgrace and the injury being done to a confiding public, whose statesmen's first duty is that pertaining to the health of the people.

Such lamentable conditions as are set forth in these reports cannot justify the graduates of many of the condemned colleges—and of others—of illegally styled universities or federations thereof, in claiming honor for themselves at home or reverence abroad—especially so when these reports, as published, are confirming beliefs for many years held by careful and patriotic observers; recognizing the apathy of men in practice to these deplorable conditions;

the profound ignorance of legislators and the people; and not least, recognizing and sorely bewailing the establishment of delusive medical cults that grow as mushrooms, some encouraged by the church and others by those who, if not otherwise occupied, would find lodgments in homes for the "weak minded" or more closely guarded "retreats." One fact is this: the brooding nests of bribers and corruptionists of commercialized, so-called medical colleges are rapidly breaking up an existence—and report has it that one dozen "concerns" have, in consequence of these exposures, been compelled to go out of "business," inasmuch as they have befouled their own nests, while others are tottering in their shoes whether to make "good" or "shut up doors." Yet, not all is gloom. Minnesota and Michigan (especially the former—with its State university—and it alone controlling medicine) are proudly named as exemplars, and it may be said that not until each State and each Province shall have its university to control all that pertains to medicine and its graduates and all other State or Provincial medical colleges—(and the fewer the better)—will we be placed in the respect of the medical world.

The time will come that no Simon Jones Smith, however wealthy, and however that wealth was secured—either by pork, coal oil, soap or stocks, will be allowed to brand the name Simon Jones Smith on the charter of university as its founder and as a reminder and monument of Smith. No! Smith may be given a chance to build a college, but that college must be under State or Provincial university control, for the great educational movements must be controlled by wise legislators, even if Smith and others of his ilk—equal worshippers of their individual shrines—and their ill-gotten gains, in too many instances, should perish and die without monuments of brass or of classic walls. Concerning interests herein named, we have an abundant fund—having for many years been searching reports, and having been a fair observer, and have often lamented that our medical journals do not sufficiently consider the necessity of publication of subjects that peculiarly relate to medical education. When we consider that Collier, a few years since, and Carnegie very recently, have done work for us which we should have done, is it not a sad reflection? However, Dr. Geo. M. Gould, of Philadelphia, in his lengthy paper, "Vocation or Avocation?" has told us some stubborn facts and well worth study. Yet how few among us have read this able paper! How few have read "The Propaganda for Reform," issued by the *Journal of the American Medical Association*! How few have read, or care to read, "Bulletin Number Four" of the "Carnegie Foundation!" Brother, you can rest assured, if you are "too busy" to read, there

are those who, heaping coals on your head, are very busy in reading. They are those who, as osteopaths, Christian Scientists, Emmanuel Movement promulgators, chiropractics and other visionaries, are seeking recognition by legislative enactments to dethrone us or debase us in public esteem—and we slumber and sleep—yet *they* neither slumber nor sleep, and we may awaken and find osteopathy as legalized in our midst. “I have no influence,” says a brother. You, if so charged, would be insulted, and if you are not capable of being ruled by the rudder of professional and personal respect you will be ruled by the rock towards which we are drifting—and that rock is composed of delusive and modern medical cults, the fabrication of the more or less insane, who wish to silence our work and disgrace us. Had we not better awaken? Yes, “doctors should wake up to the fact that even in the profession we are facing a lapse of civilization towards the silly superstitions of barbarisms and fate,” which the church and the credulity of men are daily encouraging.

Dr. Oliver Wendell Holmes, the Apollo of Medicine, as Dr. A. Jacobi classes him, has told us: “The human race is divided into two classes, those who go ahead and do something and those who sit still and enquire.” In which class are you, doctor? It is needless for an answer, for you belong to the “sit still” majority, and you will “sit still” and sit longer, even longer in other seats, when those who do not “sit still” are “going ahead” and are “doing something”—and that “something” is, among osteopaths, to become D.O.’s—not to practise medicine, but yet to be allowed to use antiseptics—more clearly set forth in their petition, soon to be presented to intelligent men in Parliament. We refer the reader of this to read the “Bulletin” herein named and such pages as relate to osteopathy, which blacken the report and should have no association with medicine. *Jam satis est verbum non amplius addam*, “I will not add another word, for enough is stated,” as Horace has said it.

It has been suggested by some in authority to discontinue the primary examinations of candidates by our Medical Council, which by those not in authority and who constitute the best thinkers in and most loyal to medicine, is considered a most serious and injurious departure, fraught with many evils and paving the way with flowers, to practice, for those who are not qualified in the essentials of medicine and wish to shun the rigid and uniform examinations which fully test the qualifications of candidates for the service of the public. Better far were higher matriculation qualifications required and made a subject of consideration by university Medical

Council and the profession, and by the Act, if B.A., M.A. or B.Sc. were demanded, we would be repeating history, for Oxford, more than three centuries since, allowed only men of these qualifications to commence medical studies. The graduates of Johns Hopkins and Harvard are affording us proofs that there is wisdom in requiring a degree in Arts or Science for matriculation, even if such well-educated men do find homes in villages or in small towns, as destiny may direct, and become leaders of men in all social reforms and public progressive movements, and daily learning facts, advanced and promulgated more than one century ago, that "Physic requires more industry, pains and labor, and more learning, a more extended knowledge of the auxiliary sciences to carry it to perfection than any other profession." They or such as they are those who "shall bring the glory and honor of the nations into it"—and this *it* is, the temple of medicine, whose foundations were laid by gods and demi-gods.

"Lofty ideals lift all of life, and happy is the man who carries with him a god, an ideal of science, an ideal of the virtues of the Gospel"—an ideal of the God within him in his duty to mankind, to heaven, and to his manhood and honor, not least to his profession, whose rank, by courtesy, we add next to the church, but when more accurately weighed we place it on higher levels, as we know no one religion; do not segregate our patients, and to each we are father, brother, tender but stern guide; their joys and sorrows are our treasure, in well-guarded adypta—our hearts.

I recall most pleasurably the lines of Dr. Charles Lever, who, in the most classical English, tells us: "The life of the physician has nothing so thoroughly worth regarding, nothing so charming, so full of hearty encouragements, as in the occasional friendships to which it opens the way. The doctor attains to a degree of intimacy and stands on a footing of confidence so totally exceptional, that if personal qualities lend aid to the position, his intercourse becomes friendship," thus the necessity of noble and hereditary virtues, and the imperative duty on the part of legislators and leaders in our universities to encourage none but the best of young men to complete their medical course, and that their matriculation for medicine shall be an arts or a science degree, to fit them, not for selfish interests, but for service for the commonwealth, wise among men and among wise men, the doctor—"Inter homines sapiens, inter sapientes medicus," and although we may have ecclesiastical vaudeville and sacerdotal sanctities, and fee-faw-fums, "veiling the mysterious," in our midst, yet, to do good is our mission, and it is our religion.



If those who are students in medicine, or are young or old in practice, were to read "Middlemarch, The Surgeon's Daughter" (Scott), "Religio Medici," "The Anatomy of Melancholy," "Extracts from the Diary of a Late London Physician," and other works of this nature, it would—(if the works have not been read and studied)—free many minds from many fancies and erroneous beliefs, and the result would be beneficial and occasion higher and nobler conceptions of the trusts and obligations in your keeping—if worthy of their guardianship.

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"These are thoughts of things, which thoughts but tenderly touch," and we must learn the first duty, and that duty is that which we owe to our profession in supporting its honor, and it is equally well to learn early in life that which Dr. Byron Robinson has told us: "The fundamental principles of a successful life are singleness of purpose, devotion to *duty*, and an untiring effort,"—and that the master word is *work*, as Dr. Osler tells us. We must have one faith and one altar.



## Surgery

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WALTER McKEOWN, HERBERT A. BRUCE, W. J. O. MALLOCH,  
WALLACE A. SCOTT, GEORGE EWART WILSON.

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**The Surgical Importance of the Omentum.** BY L. JAY HAMMOND,  
M.D., Philadelphia. *New York Medical Journal*.

The writer divides his subject into sections dealing with the Anatomy, Physiology, Pathology and Treatment. Under the second heading he outlines the functions of the omentum as follows:

- (a) Protection to the intestines.
- (b) Retention of intra-abdominal pressure.
- (c) It has a reciprocal collateral circulation and a circulation relating with the liver and stomach.
- (d) It favors peristalsis.
- (e) It aids digestion, both gastric and intestinal, by equalizing blood pressure.
- (f) It causes leucocytosis.
- (g) It regulates by a uniform pressure the intra-abdominal pressure.
- (h) It is a lymphagogue.
- (i) It occludes abnormal apertures.
- (k) It acts as a storehouse for fat.

Among the pathological conditions the writer describes splanchnoptosis as in the vast majority of instances due to the adhesion of the omentum to various viscera in the pelvis.

Torsion of the omentum he describes under three headings:

1. Its occurrence within the abdomen.
2. Within a hernial sac.
3. Combined hernial and abdominal.

Stress is laid upon the fact that the patients are usually males in middle life and that a hernia is almost constant. G. E. W.

## Ophthalmology

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D. N. MACLENNAN, W. H. LOWRY.

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**The Bacteriology of the Normal Conjunctiva in Its Relation to Intra Ocular Operations.** BY STEPHEN MAYOU. *Ophthalmoscope*, August, 1910.

The conjunctiva, being a very exposed membrane, it naturally follows that organisms continually gain entrance to the conjunctival sac, and it is strange how rarely conjunctival infection takes place. Mayou says there are many factors which bring about this natural resistance to infection.

1. The lachrymal secretion, though having little or no bactericidal action, keeps the eye cleansed by mechanically washing away the organisms.

2. The epithelium presents an important barrier to infection, if it be intact; and it has been proven that such organisms as the tubercle bacillus, staphylococcus and pneumococcus cannot attack the conjunctiva without a break in the epithelium.

3. The laxity of the tissues, and its abundant blood supply, provide the conjunctiva with plenty of tissue fluids containing protective bodies.

4. The phagocytosis of the cells forming the lymphoid layer in the conjunctiva offers an additional barrier to infection.

The possibility of infection depends upon the number and virulence of the micro-organisms, and it is important to reduce the number of organisms by flushing out the eye frequently for some time before any operation be undertaken. Mayou has proved that cultivations taken from the conjunctival sac almost invariably remain sterile after about three days of washing out with 1-6000 perchloride of mercury or even boric acid, using the solutions four times a day.

The commonest organisms found in the conjunctiva are the staphylococcus albus and bacillus nerosis, these being found in 80-90% of cases. The bacillus of Maran-Oxenfeld and the pneumococcus occur in 8% of cases, and the staphylococcus aureus, bacillus subtilis and streptococcus occur more rarely.

The germ which most commonly causes post-operative inflammation, panophthalmitis and irido-cyclitis is the staphylococcus albus.

The pneumococcus is a common cause of suppuration after operation, but it is usually associated with lachrymal obstruction.

The position and nature of the wound has much to do toward influencing infective processes. The upper and outer fornix, *i.e.*, the upper and outer part of the eye, is often sterile, when a growth can be obtained near the entrance to the tear-ducts. Hence operations should, as far as possible, be done on the upper and outer part of the eye. The presence of blood clot, soft lens matter or prolapse of the iris or lens matter in vitreous or lens capsule facilitates the growth of organisms, and are important factors in the causation of suppuration.

W. H. L.

## Genito-Urinary Surgery

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T. B. RICHARDSON, W. WARNER JONES.

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**The Treatment of Syphilis with Ehrlich's "606."** By CAPT. HENRY J. NICHOLS, M.D., and JOHN A. FORDYCE, M.D. *Journal of the American Medical Association.*

Nichols and Fordyce deal with the subject under two headings:

(a) The Theoretical and Experimental Basis for the Use of "606."

(b) The use of "606" from the standpoint of the Clinician.

In connection with the former, they point out that Ehrlich was first driven to the conclusion that the animal parasites causing malaria, trypanosomiasis, syphilis, amebic dysentery, etc., apparently cannot be successfully attacked by means of immune sera, and therefore their conquest must be attempted by means of ordinary chemical substances. The successful use of quinine in malaria seemed to indicate that this line of attack is a feasible one. Modern synthetic chemistry renders possible the preparation of an almost infinite number of combinations, which can be tried on animals infected with the animal parasites of the diseases named, until compounds are found which exhibit a higher degree of poisonous effect on the parasite than on the host.

While Ehrlich was engaged in developing this line of investigation the substance atoxyl, which is an empirical arsenical compound, came into use in the treatment of sleeping sickness, for which it proved a highly successful drug. Atoxyl then became the starting point for making synthetic compounds, with which to attack the syphilitic spirocheta. Up to the present time something like 630 different combinations have been made, of which No. "606" combination seems to be at once the safest and most potent. When given in a sufficiently large dose—0.3 to 0.6 grams—only one such administration is necessary to effect a cure! It has been found that it is not well to give it in small repeated doses, as the spirochetæ seem to acquire a tolerance of the drug.

Where the injection has been successfully administered the spirochetæ have been shown to be destroyed or "immobilized" in twenty-four hours. When successfully administered there is little

or no pain. While commonly known as "606," its chemical name is paradiamidodioxyparsenobenzoledihydrochloride—or more commonly "arsenobenzol." It is a yellowish powder, which rapidly oxydizes on exposure to air, and is therefore put up in vacuum tubes. The drug is not generally available at the present time, as the output up to the present is too small for general distribution.

From the standpoint of its clinical exhibition, the authors of this article show several photographs of "before" and "after" cases that would seem to be little short of miraculous. It is well recognized that mercury given in as large doses as are safely possible, in the early stages of syphilis, gives much better results than where the drug is given in small doses over a long period. Professor Ehrlich's contention, therefore, as to the value of a drug which at one dose destroys the invading organism, is supported by clinical experience in the use of mercury.

The authors of this paper have given the histories of several cases, which we need not here go into in detail. Suffice it to say the results were uniformly good and even, as already stated, well-nigh miraculous. Ehrlich has uttered a warning against the use of "606" in certain extremely debilitated cases, in cases of optic neuritis, and also in those who are suffering from advanced cardiovascular disease.

Finally it has just been announced that a further improvement in the preparation of "606" has been made, which still further reduces the toxicity—indeed, it is stated to be one-third that of the older substance. To this preparation Ehrlich has given the name "hyperideal."

From the collective reports of those who have used the drug the impression is gaining that we have in arsenobenzol a most thorough agent in controlling the manifestations of syphilis which are caused by the treponema. It may reasonably be hoped, therefore, that all the lesions which depend on the presence of the organisms will be favorably influenced, and the most we can expect in the secondary degenerative changes is that the process may become arrested.

Further experience with the drug will determine with more accuracy the dose which is necessary to bring about a cure, the time that must elapse before a second dose can be safely given, and the more definite indications for its use after relapses or failure of a single dose to control the symptoms.

T. B. R.



## THERAPEUTIC TIPS

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### MIGRAINE.

Rankin (*Clinical Journal*) recommends chloride of ammonium, 15 grains; phenacetine, 10 grains; codeine, 1-3 grain; powder form or cachets; or antipyrine, 10 grains; salicylate of soda, 10 grains; tincture of gelsemium, minims xv; spirits of chloroform, minims xx; water to one ounce. A dose to be taken every two hours for three doses, then every four hours until pain is relieved.

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### SPONTANEOUS EPISTAXIS.

Digitalis is recommended for patients with a tendency to nose-bleed, by Foeke (Berlin). Many years ago this was a common remedy, but fell into disuse owing to theoretical reasons, since proven erroneous.

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### PNEUMONIA.

Pneumolytic serum has been employed with favorable results by Duncan, Chatham, Ont. (*Can. P. & R.*). Not recommended after the sixth day. It shortens the period of the disease, substituting lysis for crisis. The dose used is 10 c.c., once or probably twice repeated. Duncan has used the serum two and one-half years.

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### POLIOMYELITIS.

In the first four or six weeks rest in bed is the most important indication in treating a case of poliomyelitis, according to H. L. Taylor (*Arch. of Ped.*). The treatment is hygienic and symptomatic, bowels regulated, patient comfortable, well nourished, plenty of fresh air. Foot drop, hip and knee flexion, etc., are to be prevented by attention to posture, and moderate stretching and splinting when required. Massage and electricity are useless, and one should aim to secure normalized use of the part, the most important remedy. Vibration, next to this, local, spinal and epiphyseal, is the most powerful remedy for nutritive and circulatory inadequacy and retardation of growth. For fixed deformities surgical means are to be employed.

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### EPILEPSY.

Twenty grains of bromide of sodium with ten grains of chloral hydrate, to be given every two or three hours, is advised by Turner (*B. M. J.*) in serial epilepsy, that is, where the convulsive attacks occur during a short interval.

## ANGINA PECTORIS.

Herrick (*J. A. M. A.*) says digitalis is not necessarily contra-indicated, and that it is often of value. In some cases digitalis does more good than the nitrites or iodides, the usual remedies. Patients should keep in their pockets either pearls of amyl nitrate or pills or tablets of nitroglycerine, gr. 1-100 to 1-50. Overloading of stomach, excitement, sudden exertion, even prolonged walks are to be avoided.

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## POLIOMYELITIS.

Hexamethylenamine (urotropine) is suggested by Preble in the treatment of poliomyelitis. In a letter to the *J. A. M. A.* he tells he has used it in large doses shortly after the paralytic phenomena appeared. Both cases made good recoveries, and paralysis did not extend in either case.

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## ORTHOPEDIC TREATMENT OF ACUTE POLIOMYELITIS.

John Ridlon, Chicago (*Journal A. M. A.*, October 22), states that the treatment of this disease consists of massage, use of braces and surgery. In nearly all cases of anterior poliomyelitis contraction deformities develop sooner or later. In most cases, fortunately, it is later, some months after the acute attack with its usual accompaniment of sensitiveness and soreness of the limbs has passed, and when it is comparatively easy with splints or braces to prevent it. But in a few cases contraction deformities, even of severe degree, develop during the first eight or ten days, while the sensitiveness is still so great that it seems a positive cruelty to move the child at all. But if the attending physician allows contraction deformities to develop, whether it be early or late, he should realize fully the responsibility he is taking, and should stand ready to admit that to his neglect of a simple precaution the child must have all the rest of his life more useless limbs than he needed to have. For no orthopedic or surgical treatment can ever make these contracted muscles as good as they might have been had he prevented the development of deformity. In regard to braces, Ridlon says that here and there an orthopedist can be found sufficiently competent to correct some slight contraction deformities by braces constructed to stretch the shortened muscles, but of these there are few, for most young orthopedists seem to have a greater ambition to perfect

themselves in surgery than in mechanics. As a rule, braces should be used only to prevent the development of deformities at joints where the tendency is not great, in joints where the deformity has been fully corrected, and to enable the patient to use the limb more and better than he can use it without the brace. If there is no deformity and no tendency to deformity and the patient can use the limb without a brace, then a brace should never be used. A brace should be a help, not a burden. It is greatly to be regretted that the cupidity of some physicians leads them to order braces from surgical instrument makers who give a commission of 25 per cent. on the cost of the brace, for this usually means a costly brace that the physician can neither measure for, fit to the patient, nor use intelligently. Ridlon discusses the indications for surgery and states that there is a certain risk, not often appreciated, in the use of great force in the correction of paralytic deformities. For both from non-use and from deficient nutrition arising from the paralysis, the bones grow thin and friable and may be broken before the deformity can be overcome. These bones when broken sometimes are the source of fat emboli, not infrequently the cause of death. But when a deformity can be safely corrected without a cutting operation it should be so corrected. Then it should be put up in a well-padded and heavy plaster splint and kept in the splint and used for from four to eight months. After that an efficient brace should be worn for years. When a paralytic deformity cannot be corrected by force alone, it can generally be fully corrected by simple tenotomies and force. When this is done the after-treatment should be as before indicated, namely, a well-padded and heavy plaster splint, worn for months while the limb is being used, followed by a brace, for years in most cases, and massage and movements. He declares that tendon splicing is useless and that tendon transplantation is of value in a small and carefully selected group of cases. The tendon-lengthening and joint-fixation with permanently buried silk ligatures as practiced during the past five years holds out as yet a promise of better results when well done in carefully selected cases. Yet hardly a week passes that we do not see cases operated on by others that have been utter failures. As yet it is too soon to say what the ultimate results will be after ten or fifteen years have passed in the cases that now seem to be entirely satisfactory. Treatment of these cases by nerve grafting is useless. The resection of flail joints in complete paralysis in order to obtain ankylosis and escape the burden and cost of braces for life is sometimes a success, and sometimes a failure through failure of bone union, probably owing to the impaired nutrition. The prognosis, in Ridlon's opinion, is not good for recovery from the paralysis.

## Reports of Societies

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### BRITISH COLUMBIA MEDICAL ASSOCIATION.

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The Twelfth Annual Meeting of the British Columbia Medical Association was held at Tranquille Sanatorium, Kamloops, B.C., August 16, 1910.

The meeting called to order at 11 a.m., President Dr. R. W. Irving in the chair.

Members present were: Drs. Irving, Fagan, Large, Williams, Thompson, Monro, Walker, Gordon, Burris, Burns, Archibald and Bennett.

The minutes of the last annual meeting were read and confirmed. Letters of regret at inability to be present were read from Dr. Adami, of Montreal, Dr. Bruce, of Toronto, and Drs. Eagleson, C. A. Smith and Willis, of Seattle.

After some discussion it was moved by Dr. Fagan, seconded by Dr. Gordon, that the secretary take the necessary steps to have the Provincial Association affiliated with the Canadian Medical Association.

The Western Canada Medical Association was discussed and the matter was left in the hands of the executive for further action if needed.

The Roddick Bill was discussed by those present, and it was moved by Dr. Gordon, seconded by Dr. Monro, that the bill as now printed with amendments be endorsed. Carried.

*Official Organ.*—It was decided that the papers presented to the Association be divided between and printed in the *Montreal Medical Journal* and the DOMINION MEDICAL MONTHLY.

It was moved and carried that accounts from Westminster Press for printing magazine, for \$18.75, and secretary's account for postage and merchandise, \$14.30, be paid.

Moved by Dr. Monro and seconded by Dr. Gordon that the treasurer be instructed to draw on all members in arrears for this year's dues and report result to Executive Committee. Carried.

It was moved and carried that the next place of meeting be Vancouver, time to be fixed later by the Executive Committee.

*Tranquille Sanatorium.*—Moved by Dr. Monro and seconded by Dr. Gordon, that a circular be drawn up setting forth the advantages of the Tranquille Sanatorium and the benefits accruing to the public therefrom and appealing for support, and that the matter be left in the hands of the President, Secretary and Dr. Fagan, and



that a copy be published in all newspapers in the Province; also that a separate circular be sent to the medical profession, appealing for support. Carried.

The meeting then adjourned for lunch, which was laid in the large dining room of the sanatorium under the direction of Miss Matheson, the matron, and Mr. Tyrell, the steward. This delightful repast, prepared in the new kitchen and largely supplied from products grown on the sanatorium farm, was greatly enjoyed by all.

The meeting was resumed at 3 p.m. and Dr. Kendall's paper entitled, "Report of Two Cases of Colon Bacillus Infection of the Genito-Urinary Tract in Infancy," was read by Dr. Gordon and discussed by Drs. Monro, Thompson and Williams.

Dr. Ernest Hall's paper entitled, "The Social Duty of the Physician," was read by the secretary, Dr. Walker, and discussed by Drs. Monro, Gordon, Large and Fagan.

A committee, composed of Drs. Gordon, Monro and Large, was appointed to investigate questions brought up in the paper, "Social Evil, Etc.," and to report at the next meeting.

Dr. Gordon's Paper was entitled "Supra-Pubic Drainage of the Bladder." It was moved that this society be furnished with a copy of above paper and cuts of special apparatus, and have them printed and sent to the profession.

The meeting adjourned for afternoon tea.

Dr. Thompson's paper entitled, "The Early Diagnosis of Pulmonary Tuberculosis, in Relation to its Pathology, Symptoms and Clinical Features," was read and discussed by Drs. Irving and Monro.

*President's Address.*—Dr. R. W. Irving, the retiring President, briefly addressed the meeting. He expressed his regret that the attendance was so small, but congratulated the members present upon the excellence of the papers read. He said the meetings should be held in the larger centres and hoped the next meeting at Vancouver would be a record one. An invitation was extended to the visiting members to visit Fish Lake by automobile next day.

*Election of Officers.*—President, Dr. Weld; Vice-President, Dr. Doherty; Treasurer, Dr. J. Helmcken; Secretary, Dr. Monro. Executive Committee, Drs. Gordon, Boucher and Spankie. Standing Committees to be appointed by President at a later date.

A vote of thanks was then passed to the officers of the sanatorium for the generous hospitality extended. The meeting then adjourned.



## Reviews

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*Dislocations and Joint Fractures.* By FREDERIC JAY COTTON, A.M., M.D., First Assistant Surgeon, Boston City Hospital. Octavo of 654 pages, 1,201 original illustrations. Philadelphia and London: W. B. Saunders Company. 1910. Cloth, \$6.00 net; half morocco, \$7.50 net. Canadian agents, The J. F. Hartz Co., Ltd., Toronto.

Of this work one can speak in the highest terms. Moreover, the work really embraces more than is perhaps conveyed in the title. It is essentially a one-man work, being largely the results of the author's extensive experience. The illustrations, too, are not only numerous, but in the main are reproductions of original drawings and photographs. Very naturally a good deal of stress is laid on the diagnostic value of X-rays in connection with the subjects treated of in this work.

T. B. R.

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*A Manual of Surgical Anatomy.* By CHARLES R. WHITTAKER, F.R.C.S. (Ed.), Senior Demonstrator of Anatomy, Surgeons' Hall, Edinburgh. With forty-eight illustrations in black and white and color. Edinburgh: E. & S. Livingstone.

With original illustrations and material used in his lectures Mr. Whittaker has given students a manual which will give them a good general knowledge of this subject.

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*The Hygiene of Infancy and Childhood—And the Underlying Factors of Disease.* By A. DINGWALL FORDYCE, M.D., F.R.C.P. (Edin.), extra Physician Royal Hospital for Sick Children, Edinburgh. Author of "Diet in Infancy." Edinburgh: E. & S. Livingstone.

The object of this book is to give to the busy practitioner essentials of pediatric practice which otherwise he could only gain through wide reading. It professes to correlate the primary, scientific facts of medicine as they apply specially to pediatrics.

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*"World Corporation."* By KING CAMP GILLETTE. Boston: The New England News Company.

By buying one of these books for \$1.00 you will know what it is to become interested in the incorporation of all industry, etc., into "World Corporation." This is early and plainly told. We would not say that was the object in writing the book—but dollars talk.

Rebman & Company, 1123 Broadway, New York, have issued their latest descriptive catalogue together with their fall announcement. Among the latter books our readers will find some of great interest. We particularly mention:

"No. 606 Ehrlich-Hata," which is now in active preparation.

"The Modern Treatment of Alcoholism and Drug Narcotism." By McBride.

"The Mental Symptoms of Brain Diseases." By Hollander.

"The Phase of Evolution and Heredity." By Berry-Hart.

Also a catalogue of German books which they carry in stock to offer to the profession at German prices.

They have also issued a catalogue of Art Prints, which is issued by the Medical Art Agency under their supervision. The pictures contained in this list are of the finest quality and imported from the best Art Institutes of Europe. The prices have been made as moderate as is compatible with the prevailing high duties. These pictures are excellent for Christmas presents, donations to sanatoria, hospitals, homes and asylums, etc. Our readers can secure same by postal card.

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*Fellowship and Dental Examination Papers.* For the Diplomas of the Royal College of Surgeons, Edinburgh, for several years. Price, post; 1s. and 2d. Edinburgh: E. & S. Livingstone.

A small volume of 314 pages, as the title suggests, devoted to examination papers on different subjects running back to 1905. Those going up for these Fellowship Examinations will appreciate the papers bound in compact form.

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*Pulmonary Tuberculosis and Its Complications.* By S. G. BONNEY, A.M., M.D., Denver, Colorado. New Second Edition. Philadelphia: W. B. Saunders Co. Canadian agents, J. F. Hartz Co., Toronto.

In the second edition Dr. Bonney presents the subject of pulmonary tuberculosis and its complications in such a way that it must be placed at the very top of the works on this subject. In addition to the data collected from his large clinical experience, he has succeeded in separating from the vast amount of literature the important and practical points most useful to the general practitioner in the diagnosis and treatment of this infection. The chapter on the use of Röntgen rays in the diagnosis of pulmonary lesions is especially well illustrated by X-ray photographs. The general discussion on the treatment at home and in sanatoria will be most instructive to every practitioner. In Chapter 89 the role of climate in

the treatment of this disease is well discussed. The last chapter, which is devoted to personal observations upon the use of tuberculin and bacterial vaccines in the treatment of this disease seems to justify conservatism in their employment. The volume is well bound; it contains 955 pages, with 243 original illustrations, including 31 in colors and 73 X-ray photographs.

O. R. M.

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*International Clinics.* Vol. III. Twentieth Series. 1910. Philadelphia and London: J. B. Lippincott Co. Canadian Agent: Mr. Charles Roberts, 608 Lindsay Building, Montreal.

This is a very full and complete number of 311 pages. There are several articles on Diagnosis, Treatment, Teeth and Oral Cavity, Gynecology, Medicine, Surgery, and several miscellaneous articles. The volume ends with a series of clinics given at the University of Pennsylvania during home-coming week in April, 1910.

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*Röntgen Rays and Electro-Therapeutics, With Chapters on Radium and Photo-Therapy.* By MIHRAN KRIKOR KASSABIAN, M.D., Director of the Röntgen Ray Laboratory of Philadelphia General Hospital, etc. Second Edition. Philadelphia and London: J. B. Lippincott Company.

The object of the author is to present clearly and concisely the more important facts pertaining to electro-therapeutics and the Röntgen rays. The initial portion of the work is devoted to the elementary principles of magnetism and electricity. The nature, properties and methods of measurement of electrical currents are explained; and the construction of various kinds of batteries, static machines and other electrical apparatus is fully gone into. Then follow chapters dealing with electro diagnosis and electro-therapy in diseases of the various systems of the body, including those of the eye, ear, nose and throat. The subject of high-frequency currents, cataphoresis, including fulguration, receives considerable attention.

The second portion of the work is devoted to Röntgen rays, which is treated in an exhaustive yet fairly lucid manner. Any one interested in the subject of X-ray apparatus, fluoroscopy and skiagraphy will be able to find much valuable information from the study of the author's methods.

In the third part of the book the subjects of radium, radio-therapy and photo-therapy are dealt with. The emanations of radium and X-rays are compared, and their therapeutic applications pointed out. Photo-therapy also receives careful attention.

G. C.

*Dyspepsia: Its Varieties and Treatment.* By W. SOLTAU FENWICK, M.D. (London), Doctor of Medicine of the University of Strassburg. Octavo of 485 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1910. Cloth, \$3.00 net. Canadian Agents: The J. F. Hartz Co., Toronto.

In this work the subject of dyspepsia is considered in a manner considerably different from that adopted by most authors. Dr. Fenwick is of the opinion that in the large proportion of the cases the symptoms originate entirely in the intestines or some organ other than the stomach. Moreover, he thinks a disturbance of gastric digestion is rarely due to a primary disorder of the stomach, but is usually a sequel of a disease of another organ of the body. With this conception of the pathogenesis of diseases of the stomach we are not in complete accord. There is no doubt that the majority of gastric complaints which one meets in practice are not primarily due to gastric diseases, but to disturbance of other organs, such as the nervous system, but to state "that a disturbance of digestion in the stomach itself is rarely due to primary disorder of the viscus" is going further than we are prepared to follow. If we accept this view, then we must consider errors in diet as a negligible factor in the causation of gastric disease, a view which appears to us absurd. Because most affections of the stomach are secondary in nature is no reason why we should not designate them diseases. One would be equally justified in excluding from the domain of substantive diseases most of our disease entities.

With the exception of the classification of diseases there is little which we can criticize. The text is well written, scientific and up-to-date in every particular. Physicians who have given some special attention to the study of diseases of the alimentary tract will find it valuable reading.

G. C.

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*Medical Electricity and Röntgen Rays.* By SINCLAIR TOUSEV, A.M., M.D., Consulting Surgeon to St. Bartholomew's Clinic, New York City. Octavo of 1,116 pages, with 750 illustrations, 16 in colors. Philadelphia and London: W. B. Saunders Company. 1910. Cloth, \$7.00 net, Half Morocco, \$8.50 net.

This is a book of over 1,100 pages on medical electricity and radio-therapy. The first 500 pages are devoted to the principles of electricity, and its application in treatment and diagnosis. Dynamic as well as static electricity is considered, and special attention is given to the applications of electricity in neurology. High-

frequency currents are discussed as to their generation, physiological and therapeutical actions.

The second half of the work is devoted to Röntgen rays and radium. The former subject is treated in all its aspects bearing on medical science in a thorough but lucid manner, a valuable part being the fluoroscopy and radiography of special parts of the body. The sections on radium form interesting and instructive reading. The different emanations are described and their physiological and therapeutical actions explained.



# Dominion Medical Monthly

And Ontario Medical Journal

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**Genito Urinary Surgery:** T. B. Richardson, W. Warner Jones.

**Anesthetics:** Samuel Johnston.

GEORGE ELLIOTT, MANAGING EDITOR

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VOL. XXXV.

TORONTO, NOVEMBER, 1910.

No. 5

## COMMENT FROM MONTH TO MONTH.

**The Medical Man and the Criminal.**—The recent series of criminal cases in which medical men have been defendants, brings to our notice again the dangerous position in which the average physician stands.

The cities and larger towns contain a number of women whose value to the community is frequently worthless, and who, morally, are a blot to the good name of their domicile. Add to these the number of feeble-minded girls, the defectives in cerebral power, and the uneducated, undeveloped classes, with, as a final addition, the selfish, devil-may-care individuals who, in the first place, ruin their own lives and then desire to pull the walls down on all surrounding them.

The physician has to do his best to assist these when ill and rarely receives any financial return for doing so, and when these same girls fall victim to one of their masters, or when they desire to victimize the doctor who trusts them, by blackmail, they return to the office of their medical man and are accorded a necessary or unnecessary pelvic examination.

To say that no physician should examine an unmarried woman, except when a nurse or friend is present, is a worthless fable in the life of a big city, for this class of girl, and the respectable girl who

falls below the moral line for the first time, will both require and request secrecy of the physician in the examination which would disclose their unfortunate position to the attendant friend, the very thing indeed they fear the most.

The physician must and always will examine these cases in private surroundings, and he thereby will always be open to blackmail and to lying.

But in our profession, the publication of the lie leads to the most terrible results, the loss of fame, of business, and the turning aside of many an old and trusted patient and friend.

Surely this is not fair to our noble profession, and if we continue to trust the public, on the other hand the public must trust the profession.

There is but one remedy for this ugly sore, and that is the following:

The charges made against professional men of criminal action while in the pursuit of their professional duties should not be handed to the newspapers by the police departments, and the preliminary trial should take place before a trial court of a few trusted medical men, in fact a minute professional grand jury, who will judge whether the case goes on to the criminal courts or is dismissed and the physician acquitted.

We medical men understand these cases better than our legal brothers, and it is high time that we arose and in our might demanded *fair play* instead of the horrible nightmare which is open to any gentleman in the profession of medicine at the passing whim of some miserable bird of prey from the slums.

G. W. H.

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**Medical Inspection of Schools** has gotten off to a bad start in Toronto. The Board of Education placed the matter in the hands of a special committee. Two medical inspectors were appointed by the Board to work under the direction of the chief inspector of schools. Friction soon occurred and Dr. MacMurchy, one of the medical inspectors, not liking the arrangements, asked to be allowed to send her reports direct to the Board. This has been refused, and Dr. MacMurchy has been asked for her resignation.

It was tacitly conceded amongst the members of the medical profession that Dr. MacMurchy was qualified for this work. Indeed, under the circumstance, any medical practitioner would be, so it is rather unfortunate that at the very outset differences of opinion should make themselves so strongly manifest.

The object of the medical inspection of schools is to prevent dis-

case. It is, therefore, educational in its aspect as well as medical. But the prevention of disease can only be brought about through the intelligent work of one well versed in all the methods to prevent disease. So one who is qualified to detect disease and who knows of the proper means to use to prevent disease should be selected to teach others how to prevent disease. If a public school inspector is thus qualified, why, choose him; but if a medical health officer is the better qualified, then choose him.

Our own opinion is that the conservation of little human health is a problem which comes under the hygienist rather than the educationist, and that it is not necessary for us to "copy" from New York or anywhere else, but to "adopt" the best possible system of medical inspection of schools, independent of whether it is to be administered under a school inspector or a medical health officer.

We believe the best plan would be to have a chief of this department with proper assistants, directly responsible to the Board of Education, dissociated altogether from the inspectors' offices and that of the medical health officer as well.

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**Appointments to the Hospital for the Insane Service** in the Province of Ontario we have often before had to condemn. In our opinion, and we believe in the opinion of the medical profession of the Province, those appointments to superintendencies or even into the service from amongst members of the medical profession who had no special training in psychiatry were all wrong and did not by any means treat fairly assistants in the service who practically all their lives had devoted their talents and their energies to psychiatric work.

In connection with a recent appointment of a layman to a superintendency of one of these institutions, we have no particular quarrel, as it is quite well known that many institutions of this character are governed properly by laymen. We always objected to putting a politician who happened to be a doctor over the heads of well-trained and competent assistants; and we are satisfied that the medical profession will approve the action of the Government when promotion in the service is properly recognized.

All the better will it be for the service if the Government recognizes this principle in the future and frowns upon all attempts to enter the service by the often before travelled route, the stump, the hustings, and the ward committee room.

A doctor fresh from the ward committee room or an editor from a country newspaper may be selected to administer the business end of an institution if he is deemed qualified so to do, but he should

never be selected to conduct the psychiatric work of such institution over the heads of trained assistants who are by far his superiors in this branch of medical knowledge.

If, of course, an experienced assistant has the essential administrative capacity to superintend, all the better if promotion is recognized in this direction.

---

**"606" or dioxydiamidoarsenobenzol**, Professor Ehrlich's new discovery for the treatment of syphilis, promises to be one of the greatest of medical discoveries. It has been designated "606" because of the fact of it being the 606th preparation with which Ehrlich has experimented. A shorter and better title has been suggested—arsenobenzol.

Great strides have recently been made in our knowledge of this dreaded and dreadful malady—*spirocheta pallida*, Wassermann reaction and now "606"—and these in five years.

What is "606" ?

It is said to be a yellowish powder of the composition—dioxydiamido-arsenobenzol. The dose is put at 0.5 gm., or eight grains. It is remarkable in that only one dose is needed to bring about total destruction of all the *spirocheta pallida* in the human economy.

So far it has been used in over twelve to fifteen thousand cases with most marvellous results, and if uniform good results continue the immense literature extant on the subject will practically all have to be rewritten.

So far it has not been much used in America, and it would be wise not to employ it generally when put upon the market here, until it has been abundantly determined sound treatment.

As up to this time it has been universally considered that it takes anywhere from two to five years to cure syphilis, it is doubtful if it can safely be promised a cure is established in any given case until at least that length of time has elapsed, even although the spirilla are not found a short time after the administration of a treatment.

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**The Conference of Public Health Men**, held recently in Ottawa under the auspices of the Public Health Section of the Canadian Conservation Commission, should bring about results of the very greatest importance in health matters all over Canada.

Any one who has the least opportunity to see and know something of the great amount of scientific and practical work, to say

nothing of the valuable literature issued thereon, must appreciate the fact that the United States in the matter of prevention of disease and in all matters of public health is at least ten years in advance of our federal authorities at Ottawa.

For many long years the Canadian Medical Association tried to impress upon the Government the great desirability of having a central laboratory and public health department for Canada at Ottawa, under one of the existing Ministers of the Crown: but they never made any material advance upon the subject, as the various departments did not wish to give up what little patronage might be theirs under the present regime.

But it has become apparent that others than members of the medical profession now see the need of Canada taking a foremost position in all matters pertaining to public health, and it is to be hoped that under the guidance of the Conservation Commission, and specially its Public Health Section, something tangible may now be secured in the way of laboratories for the scientific study of disease as it appears in our midst, and a united central force as has been so long desired by the medical profession.



## News Items

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INFANTILE paralysis is said to be epidemic in Vancouver.

DR. L. L. PALMER, Toronto, has removed to Grimsby, Ont.

DR. MURRAY MACLAREN, St. John, N.B., has gone to Germany.

MONTREAL'S death rate from tuberculosis decreased 67 in the past twelve months.

DR. ARTHUR L. KENDALL, a young physician of Vancouver, died on the 5th of October.

DR. C. H. HIGGINS, Dominion Government Pathologist, has been on a trip through Western Canada.

DR. S. H. FREEZE, Rhodesia, South Africa, is visiting in Fredericton and other points in New Brunswick.

DR. E. P. LACHAPPELLE, Montreal, has been elected First Vice-President of the Royal Edward Institute, Montreal.

DR. J. J. THOMPSON, late of Lanarkshire, Scotland, has been appointed District Medical Officer of North Vancouver.

DR. F. C. BELL has been appointed successor to Dr. J. A. Gunn as Superintendent of the Winnipeg General Hospital.

DR. P. H. BRYCE, Chief Medical Officer of the Department of the Interior, has been paying an official visit to St. John.

NORTH BATTLEFORD is to have a hospital at a cost of \$50,000, and the work of construction will be undertaken by the Order of Providence, Montreal.

DR. A. F. MILLER, head of the Provincial Sanatorium for Tuberculosis at Kentville, N.S., has been appointed Superintendent of the Detroit Sanatorium for Consumptives.

THE total number of deaths in Montreal in 1907 from all forms of tuberculosis was 953; 1908, 945; 1909, 845. From pulmonary tuberculosis, in 1907, 748; 1908, 760; 1909, 665.

A NEW Quarantine Hospital is to be constructed by the Dominion Government on Digby Island, near Prince Rupert. When completed it will be in charge of Dominion Quarantine Officer, Dr. Herbert E. Tremayne.

THE annual meeting of the Winnipeg Medical and Surgical Society was held on October 7th. Dr. S. W. Prowse was elected President; Dr. H. P. Galloway, First Vice-President, and Dr. J. A. Gunn, Secretary-Treasurer.

Frosst's Capsules contain the Glycerophosphates in accurate dosage, encased in the finest soluble gelatine—no alcohol, sugar, excess of acids or other additions, which in the elixirs and solutions are an objection.

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Prof. Philemon E. Hommell, Jersey City, says, "Glycerophosphates have evidently come to stay; they are frequently prescribed in the treatment of neurasthenia \* \* and seemingly give desirable results; they should obtain official recognition in an eligible form."

—Merck's  
Report for May, 1910.

DR. E. H. DILLABOUGH, Hamilton, is dead, aged 76 years.

NEW WESTMINSTER, B.C., is contemplating a new hospital at a cost of \$200,000.

DR. S. MAUFETTE, Montreal, the victim of a gunshot injury died last month in the Hotel Dieu Hospital, Montreal, aged 32 years.

DR. WM C. GILDAY, who had but returned from a two years' course abroad and established in Toronto as a specialist in eye, ear, etc., died recently in this city.

DR. W. C. HERRIMAN, Assistant Superintendent of the Toronto Hospital for the Insane, has been appointed Chief of the Medical Staff at the Orillia institution.

A NEW building for the Babies Hospital, Montreal, is contemplated, at a cost of \$100,000. Last year for lack of accommodation over 350 babies were refused admission.

THE total number of patients treated during the first year of the Royal Edward Institute, Montreal, was 773, of whom 300 died, 48 lost sight of and 425 remained for treatment.

DURING the month of October there were 1,226 cases of contagious disease in Ontario, from which 266 deaths resulted. There were eight deaths from 146 cases of infantile paralysis.

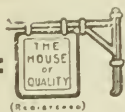
THE Oxford Medical Association held their annual meeting in Woodstock on the 21st of October. Dr. A. Primrose, Toronto, was the guest of the society and read a paper on the treatment of surgical affections of lymph glands of the neck.

MR. GEORGE NASMITH, M.A., Ph.D., assistant in the laboratory of the Ontario Board of Health, has been appointed chief of the laboratory for the city of Toronto. The appointment is a popular one with the medical profession of the city.

BRANDON Hospital for the Insane was completely destroyed by fire on the afternoon of the 4th of November. Through the efficient work of the staff and guards not a single life was lost. The institution had in residence over six hundred patients.

QUEBEC City Board of Health will ask the Dominion Government for enlarged powers towards returning ships for inspection to Grosse Isle, the object being to take all necessary precautions in preventing the introduction of cholera into that port.

THE National Sanitarium Association are asking Toronto for a grant of \$200,000 towards their institutions. At the present time they are caring for 143 city order patients in their five institutions from Toronto, which is more than double the number they agreed to care for.



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MONTREAL

DR. MACCALLUM has resigned from the Penetang institution.

DR. ROLLINS, Orillia, has been made assistant to Dr. Beemer at Mimico.

DRS. GEO. E. ARMSTRONG and F. G. Finley, Montreal, have gone to Europe.

DR. HARLAN P. REYNOLDS died at Laprean, N.B., on Oct. 8th, aged 71 years.

DR. MOHER, Brockville, has been transferred to the Superintendency at Cobourg.

DR. J. M. FORSTER, London, becomes Superintendent of the Hospital for the Insane at Brockville.

DR. HARVEY CLARE, Mimico, has been appointed assistant superintendent at Toronto Hospital for the Insane.

DR. LEONARD LUTON, St. Thomas, died Nov. 1st, aged 75 years. He was a member of the Ontario Medical Council for a number of years.

THE nurses of the John H. Stratford Hospital, Brantford, went out on strike on the 25th of October. The hospital was crowded, having sixty-two typhoid cases; and the nurses demanded better conditions of work. It is said all their places were promptly filled by graduates of the institution.



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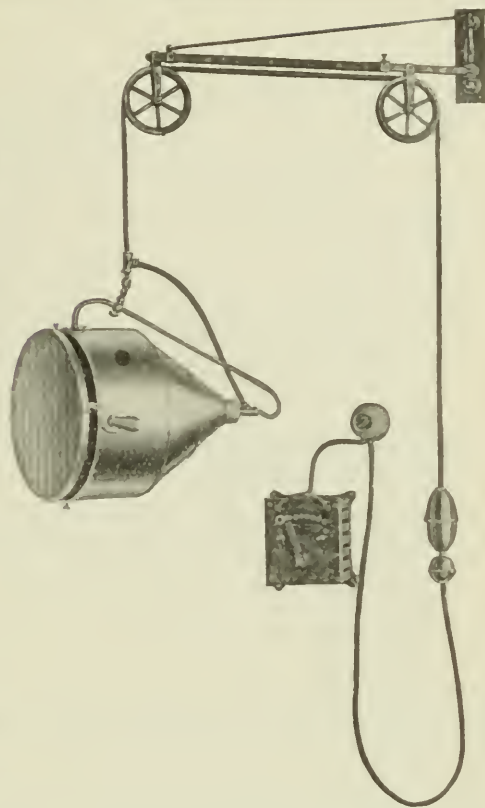
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## Publishers' Department

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THE REMEDIAL VALUE OF IRON. — Amid all the doubt that modern skepticism and therapeutic nihilism have aroused in the professional mind, in regard to the medicinal or drug treatment of disease, we have yet to hear any question as to the distinct value of iron in anemic, chlorotic and generally devitalized conditions. This metal is, indeed, the physician's mainstay in such cases, and cannot successfully be omitted or replaced. There does exist, however, considerable difference of opinion as to the method of administering iron and as to the most generally eligible preparation of same. The tincture of the olden times, prepared from iron filings, has in these later days been superseded by the less irritant and more tolerable preparations introduced into modern pharmacy. Among such products none has seemed to be so generally acceptable and promptly assimilable as the organo-plastic form represented by Pepto-Mangan (Gude). The ferruginous element in this preparation exists as a true peptonate, in combination with organic manganese, iron's side-partner in reconstructive blood therapy. It is palatable, readily tolerable, quickly absorbable and assimilable and entirely free from irritant or constipating effect. Pepto-Mangan (Gude) rapidly restores vigor to the circulating fluid, and because of its blandness and ready tolerability is especially valuable in pediatric practice.

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It is a well-established fact that many of the chemical effects produced by living cells are due, not to the direct action of the protoplasm, but to that of soluble ferments or enzymes. Bovril is prepared by the complete disintegration of the muscle-cells of the finest ox-beef. The meat juices, with the intracellular enzymes in solution, are concentrated and then incorporated with the pulverized fibrine of fresh, unexhausted muscle tissue. Over and above its value as a highly nutritious nitrogenous food, there can be little doubt but that it has hydrolyzing and oxydizing properties which function largely in the anabolic and katabolic changes in the tissues of the consumer. It possesses the elements essential not only for its own digestion and assimilation, but also for that of other proteid, fat and carbohydrate foods. It is thus a tissue-stimulant in the broadest sense, aiding in the hydrolysis, oxydation and elimination of the effete products of katabolism, and in the building up of new tissue. In health, convalescence and disease, it thus serves a valuable purpose and has acquired an unassailable position in modern therapy.

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WE ALSO SELL THE DR. DEIMEL LINEN-MESH SUPPORTERS & SUSPENSORIES

The Canadian Medical Exchange, conducted by Dr. Hamill, Medical Broker, 75 Yonge Street, Toronto, desires to say that at no time of the year are there so many buyers looking for medical practices as now, and would advise those contemplating selling out to list their practices with him at once. He also can give buyers without financial ability a list of villages without a doctor that desire one, and the territory in every case should warrant a practice of from \$2,000 to \$3,000 annually.

---

ONE COMMON LUNG BACILLUS.—It is quite generally accepted that pulmonary tuberculosis is caused by a bacillus. Coughs, colds, la grippe and bronchitis come and go, even if we cannot exhibit them as entities under the microscope. It would, indeed, be a fortunate thing if there were one common lung bacillus, the destruction of which would remove the cause of all respiratory affections. But under the present condition of things we can only meet indications, treat symptoms and trust to nature. In the treatment of throat and lung affections one remedy of the materia medica stands out more prominently than all others. Codeine has the marked peculiarity of controlling coughs and relieving the irritated and inflamed lining of the respiratory tract without arresting secretion. Here it shows its value over morphine. It is not followed by constipation, creates no habit, nor is the mucous membrane of the throat and bronchial tubes made dry. To control the cough and quiet the irritation, at the beginning of an attack, often prevents most serious trouble. There is another remedy which must occur to the mind of every well-posted physician as especially applicable to these conditions. The power of antikamnia to reduce fever and thus control inflammation makes it one of the best preventive and curative agents. The combination of two such clearly defined remedies for respiratory affections is most fortunate. They are prepared in the form of "Antikamnia and Codeine Tablets."

---

AN UNCONVENTIONAL COUGH SYRUP.—There are "cough syrups" without end. Some of them, it is needless to say, have little or no therapeutic value. Conversely, there are some that no physician need hesitate to prescribe. One of these—Syrup Cocillana Compound (P. D. & Co.)—is so exceptional in many particulars as to be worthy of special mention just now, when coughs are so plentifully in evidence. By its name no one would recognize it as a preparation for "coughs" and "colds," and this, in connection with its general efficiency, constitutes one of its chief claims to distinction. It is a product which the layman knows nothing about. It does not encourage counter-prescription or self-medication. It



## Medical Council Election

The Nomination papers for members of the Medical Council of Ontario must be in the hands of the Returning Officer for each Division by Monday, November 14th, at 2 p.m., and the Voting papers by Monday, December 5th, 1910, at the same hour.

By Order,

J. LANE,  
President

J. L. BRAY,  
Registrar



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which can be made suitable for any degree of digestive power by the simple process of letting it stand for a longer or shorter period at one stage of its preparation.

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Mothers and interested persons are requested to write for Booklet "Benger's Food and How to Use it." This contains a "Concise Guide to the Rearing of Infants," and practical information on the care of Invalids, Convalescents, and the Aged. Post free on application to Benger's Food Ltd., Otter Works, Manchester, England.

*Benger's Food is sold in tins by Druggists, etc., everywhere.*



was designed especially with reference to the needs of the prescriber. The formula of Syrup Cocillana Compound, which of course is plainly printed on the label, is quite unusual. Let us briefly consider its components: *Euphorbia pilulifera*—serviceable in the treatment of chronic bronchitis and emphysema; wild lettuce—a mild and harmless narcotic, useful in spasmodic and irritable coughs; cocillana—valuable expectorant, tonic and laxative, exerts an influence on the respiratory organs similar to that of ipecac; syrup squill compound—serviceable in subacute or chronic bronchitis, as an expectorant, and as an emetic in croup; easearin—the bitter glucoside of *Casearia sagrada*, useful for its laxative action; heroin hydrochloride—a derivative of morphine and extensively prescribed in the treatment of cough, especially of bronchial origin; menthol—stimulant, refrigerant, carminative and antiseptic, serviceable in coughs of pharyngeal origin. Syrup Cocillana Compound would seem to be worthy of extensive prescription.

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HOME OF THE AMERICAN MEDICAL ASSOCIATION.—In the second chapter on the development of the Home of the American Medical Association (*Journal A. M. A.*, October 29) it is said that in spite of twice enlarging the plant more room became necessary even though there should be no further development in the enterprises of the association. The Board of Trustees accordingly presented the matter before the House of Delegates at the Atlantic City meeting in 1909, stating that the matter of greater facilities was one that continued to arise. Accordingly, they had had provisional plans made for a new building to cost \$2,000,000, which was to be absolutely fireproof, six storeys in height, strong enough for additional storeys, and making provision for sufficient room for a considerable time in the future. The conference committee to whom the question was referred reported favorably on the proposition, its report was adopted by the House of Delegates and the Board of Trustees was authorized to go ahead with the building according to final plans to be approved by them. The architects then prepared final plans and specifications, the contract was let and the work of razing the old buildings on the site owned by the Association was begun in March, 1910. After the excavation had been prepared, in order to make a solid foundation for such a heavy building, piles to the number of 377 were driven, on which the concrete piers and walls for the support of the steel framework were to rest.

# Dominion Medical Monthly

And Ontario Medical Journal

VOL. XXXV.

TORONTO, DECEMBER, 1910.

No. 6

## Original Articles

### VACCINE THERAPY ; ITS ADMINISTRATION, VALUE AND LIMITATIONS.\*

BY GEORGE W. ROSS, M.A., M.B. (TORONTO), M.R.C.P. (LONDON).

No more definite indication of the important place that vaccine therapy has come to occupy in British medicine can be found than in the circumstance that the Royal Society of Medicine of London debated this subject at six of its meetings during the months of May and June of this year. In all some thirty-four physicians, surgeons and scientists took part in the discussion. Their remarks have been incorporated in one large quarto volume of 216 pages. As this work is unavailable for the majority of the profession, it was thought that a resumé of the remarks of some, if not all, of the gentlemen who took part in the discussion would prove of considerable interest and instruction.

The subject, as set down in the title, was opened by an address from Sir E. Almroth Wright, who is the discoverer and chief protagonist of the method. Sir Almroth himself appreciated the great difficulty of thoroughly covering his subject, and proceeded first of all to discuss the rationale of vaccine therapy. Its fundamental principle is, according to his view, "to exploit in the interest of the infected tissues the unexercised immunizing capacities of the uninfected tissues," which means in short that all inoculations of a bacterial vaccine (consisting of devitalised bacteria) cause, near the site of inoculation or somewhere else in the tissues, the elaboration of anti-bacterial substances. These anti-bacterial substances are carried by the blood and lymph streams to the focus of infection,

\*Being a Resume of a Discussion on this subject before the Royal Society of Medicine in London.

and are there directed towards the destruction of the microbes at work.

Sir Almroth Wright next refers to the necessity of increased knowledge for the successful utilization of this method. For example, a medical man who wishes to have recourse to vaccine therapy, ought at least to have a working acquaintance with the microbes which infect the human body. He also ought to understand the general principles of immunization, and be able in some way to arrive at the minimum effective dose of each particular vaccine. He ought further to have a knowledge of the conditions which obtain in the focus of infection, and of the best method of circumventing these difficulties.

The next part of the address is concerned with the question of the relative importance of bacteriology and clinical medicine. In this connection he projects the science of clinical bacteriology to the front. In passing on to it he expresses his astonishment that bacteriology should have taken so long to reach the important place that belongs to it, especially in the face of such discoveries as that of Lord Lister and the agglutination reaction in typhoid fever and of many others. He points out that these methods are clearly bacteriological.

Sir Almroth does not miss this opportunity of having a fling at the pure clinician. He admits that there was a time when the verdict of the pure clinician on a question of diagnosis was incontestable. Diphtheria then meant a condition when a particular kind of false membrane appeared in the throat, and phthisis a disease in which certain noises could be heard down the stethoscope. Now he says diphtheria means an invasion of the throat by the diphtheria bacillus, and phthisis an invasion of the lungs by the tubercle bacillus. One interesting fact is referred to. Physical signs in a given case of say pulmonary tuberculosis fall far short of indicating the true extent of the lesion, and further bacteriological methods discover pathogenic microbes in, for example, typhoid fever and other conditions before a diagnosis could possibly be arrived at by the methods of physical examination.

If one did not know Sir Almroth Wright's mental attitude one would be inclined to think that certain of the remarks which follow are unnecessarily harsh, but those who know him appreciate his keen sense of humor and delight in epigram. He refers in rather emphatic terms to what he considers the desire of the pure clinician to escape the labor of learning bacteriology by the delegation of his bacteriology to institutes or individuals who are concerned with this work, and the use of these same agencies for the production of

the requisite sera or vaccines. Sir Almroth does not believe that medical men can continue to do this indefinitely, probably for the reason that vaccine therapy and the skill and knowledge of the bacteriologist will ere long predominate in medicine, that is to say, the medical man will become more of a bacteriologist and less of a clinician.

Then follows a psychological analysis of certain questions of morality with respect to the delegation of work on the part of the physician, but this, though interesting, need not concern us at the present moment.

Sir Almroth next proceeds to discuss the limitations of vaccine therapy, and he does it from the following standpoints: (1) "As contended for by the clinician who regards vaccine therapy as an uncomfortable innovation;" (2) "Limitations contended for by the bacteriological worker who looks forward to vaccine therapy being applied in conformity with scientific principle."

He discusses the subject under the following headings:

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| 1. "Limitations as contended for by the clinician who regards vaccine therapy as an uncomfortable innovation."                               | 1. "Limitations as contended for by the bacteriological worker who looks forwards to vaccine therapy being applied in conformity with scientific principle."  |
| 1. "Vaccine therapy finds no useful application except in connection with furunculosis."   | 1. "Vaccine therapy can be applied only where an exact bacteriological diagnosis has been made, and where the diagnosis is kept up to date."  |
| 2. "Vaccine therapy is of limited utility, because it can be applied only by those who have devoted study to bacteriology and immunization." | 2. "Vaccine therapy can be applied only by those who have some acquaintance with bacteriology, some understanding of the rationale of vaccine therapy, and a knowledge of the dose of the particular vaccine which it is proposed to employ." |



3. "Vaccine therapy finds no useful application in connection with the graver infections, such as pneumonia, rheumatic fever, typhoid fever, phthisis, meningitis, and streptococcal endocarditis."
3. "A limit is placed to the efficacy of inoculations by the fact that there are definite limits to the responsive power of the patient."
4. "The proper sphere of vaccine therapy is not to take the place of any surgical operation, but to supplement it."
4. "Successful results can be obtained only where an efficient lymph stream can be conducted through the foci of infection."
5. "Vaccine therapy finds no useful application in connection with the ordinary infections of those regions of the body which fall within the sphere of the particular speciality which the critic happens to practise."
5. "In long-standing infections vaccine therapy can give definite results only after a long succession of inoculations, and there is no security against a relapse until the infection has been completely extinguished."
6. "Vaccine therapy is of limited utility because it is applicable only to disorders which are referable to bacterial infection."
6. "In a not inconsiderable percentage of cases it is essential to success that the dose of vaccine shall be controlled by measurements of the opsonic index."

Sir Almroth discusses the limitations, as contended for by the clinician, in detail, and we may say dismisses these contentions to the satisfaction of himself, and largely to the satisfaction of anyone who has a thorough working knowledge and practical experience of his method. One of his interesting statements is that vaccine therapy promises to be brilliantly successful in pneumonia, that it holds out some promise in typhoid fever and in many forms of rheumatism, and that it supplies the only real hope we have in endocarditis. He also points out that the bounds of vaccine therapy are being more and more extended as bacterial causes are put down for such things as certain forms of jaundice, bronchitis, common colds, many cases of asthma and many cases of cardiac disease. He denies that the bacteriologist is successful in finding a bacterial



origin for all sorts of disease, and presents certain examples of unusual conditions, which, to his surprise, proved to have a bacteriological origin. One of the cases recorded is that of an extensive X-ray dermatitis, which yielded a streptococcus in cultures and responded to streptococcus vaccine. Others were cases of toothache and pyorrhea, and one was a case of pruritis ani. He points out that the origin of urinary calculi is almost always in a microbic nucleus. He says that many cases of indigestion, vomiting, flatulence and distension of the stomach are due to bacterial infection of the stomach, most often due to streptococci which have been swallowed with the food. He says that much of the pain in cancer is also due to the secondary infection by the micrococcus neoformans of Doyen. He refers to the treatment of diabetes in one case by the administration of bacillus coli vaccine, and in several others of staphylococcus vaccine. Doubtless these cases were due to an infection of the pancreas by one or other of these micro-organisms.

He refers to enuria as being attributable in certain cases to an infection of the bladder by the bacillus coli or some other micro-organism.

When he comes to discuss the limitations, as contended for by the bacteriologist, he points out the necessity of an exact and complete bacteriological diagnosis as a *sine qua non* for a proper understanding of the condition and for its appropriate treatment. He draws attention to certain tests which can be used to determine whether or not a cure has been effected in any given case. These tests have to do with the estimation of the opsonic index of the blood at certain stages during the course of the treatment, from which his deductions are made, but these considerations need not detain us here.

He says that the only one of the contentions in column two which is in any sense of the word controversial, is that it is not infrequently essential to success that the doses of vaccine shall be controlled by the measurements of the opsonic index, and he proceeds to take up the cudgels on behalf of his method of measuring this index. We will just mention his conclusions:

"I have satisfied myself, and all my fellow-workers have satisfied themselves, and I am glad to say a very large and increasing number of bacteriological workers all over the world have satisfied themselves, that when the 'functional error' has been reduced, as it can be by practice and patience, to small dimensions, and when, in connection with tubercle, the customary counts of 100 or more leucocytes are made, the 'mathematical limit of error' of the opsonic index is such as need not seriously be taken into account. In

view of this, I suggest that those critics who have put forward figures showing enormous working errors in opsonic estimations may have supplied to the world data with regard to the magnitude of their own functional errors, instead of—as self-esteem assured them—data with regard to errors in the opsonic method.”

Sir Almroth next brings forward certain evidence to prove that the rise and fall of the opsonic power of the blood is correlated with improvement and aggravation in the condition of the patient, although admitting that his method is only a partial evaluation of the anti-bacterial powers of the blood.

The question as to whether the measurement of the opsonic index can be dispensed with, and whether there is any other guide which can take its place, has exercised the minds of almost all who have undertaken the practical application of opsonic therapy to the treatment of disease. Sir Almroth Wright considers this in some detail, and I think we cannot do better than to quote his conclusions.

“Let me briefly describe to you what our practice is in connection with the control of inoculation by the opsonic index in the case of the out-patients and in-patients in the Inoculation Department of St. Mary’s Hospital. In an ordinary case of localised streptococcus or staphylococcus infection we practically never have recourse to the opsonic index. In connection with these infections we know the appropriate doses of vaccine, and the clinical symptoms furnish any further guide that may be required. The same holds true of acne. It holds true again of croupous pneumonia.

“When we have to deal with a case of staphylococcus infection, such as sycoosis, which has obtained a firm hold upon the patient and which offers considerable resistance to the treatment, and which we can only hope to overcome by a succession of effective inoculations, it is often necessary to regulate the dose by means of estimation of the opsonic index.

“The same holds true of the very chronic streptococcus infections which are associated with tuberculous disease of bone. It holds true again of the chronic coliform infections.

“In the cases of tuberculous infection we make a distinction. We make it a practice in every case of phthisis to control the effects of the inoculations by the opsonic index, but employing, as we do in the case of phthisical out-patients, only doses which give no negative phases, we find it sufficient to determine by blood examination, undertaken on the day before the patient returns for inoculation, whether the dose has been adequate to keep the opsonic index up to the normal. In the case of phthisical patients who are treated

in the wards, more frequent examinations are undertaken. In the case of tubercular adenitis and other localised forms of tubercular infection we limit our opsonic examinations if satisfactory progress is being made. As a rule, we undertake these only where the question of increasing the dose presents itself. In cases which do not make such satisfactory progress the opsonic index is estimated much more frequently.

"In cases of septicemia and in cases of advanced phthisis, and, in short, all cases where the condition of the patient is undergoing constant and rapid changes under the influence of continuous auto-inoculations, we find that the measurement of the opsonic index does not render any very valuable services.

"In conclusion, I may mention, in connection with the question as to whether the temperature in a pyrexia case can be taken as a guide to the opsonic index, that we have over and over again verified that, except in those unfortunately more or less rare cases where a pyrexia infection is being definitely got under by inoculation, we do not find any of that inverse correlation of temperature to the opsonic index which is illustrated in some of our published charts, and which Dr. Latham, generalising apparently from very few cases, has alleged to constitute the general rule. The temperature cannot therefore be depended upon as a guide in immunization."

Sir Almroth next deals with the results of vaccine therapy. He contends at the outset that it would be impossible for him in the time at his disposal to give even a summary of his results, and so he satisfies himself with the explanation of certain cases which have been quoted as failures for vaccine therapy. His most interesting address concludes with a description of the mode of administration of the vaccine, and he expresses his belief that the hypodermic method is much to be preferred to that of oral administration, chiefly because precision of dosage is more certainly obtained by the former than by the latter method.

*(To be continued.)*

## THE RELATION BETWEEN ORGANIC AND FUNCTIONAL NERVOUS DISEASES.\*

BY ERNEST JONES, M.D., M.R.C.P.

Associate in Psychiatry, University of Toronto.

*Ladies and Gentlemen*,—I am to speak to you on the relations between organic and functional diseases, and as I wish to confine my remarks principally to questions of diagnosis, it will first be necessary shortly to consider what we understand by these terms. Under the term functional nervous disease, two different groups of conditions are included, and I must here express my grave doubt as to whether either group concerns functional nervous disease in the sense ordinarily implied by this, that is, a disorder of nervous function apart from alteration in nervous tissue; in my opinion, the evidence points to the one class being of a truly organic nature, while the other is not truly a nervous disorder. I can best make my meaning clear by recalling to your mind the following groups of conditions in a scheme which will illustrate the point at issue:

- A. Nervous diseases with a gross macroscopic lesion. (Tabes dorsalis, disseminate sclerosis, etc.)
- B. Nervous diseases with no gross macroscopic lesion. (Chorea, Parkinson's disease, some forms of epilepsy, etc.)
- C. Actual Neuroses.
  - 1. Neurasthenia.
  - 2. Anxiety Neuroses.
- D. Psycho-Neuroses.
  - 1. Hysteria.
  - 2. Obsessional States.
- E. Psychoses. (Dementia præcox, General paralysis of the insane, etc.)

It has been established that in the case of the diseases in group B there are definite changes demonstrable by the aid of the microscope, though much remains to be learned concerning the nature and distribution of these; properly speaking, therefore, these diseases are truly organic in nature, and the term "functional" should not be applied to them. On the other hand, the

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\*Summary of a Lecture delivered at the Post-Graduate Clinic of the Toronto Orthopedic Hospital, Nov. 12th, 1910.



diseases in groups C and D can hardly be called primarily nervous diseases, since they take their origin in a more general source, namely, in deviations, perversions and erroneous functioning of certain of the biological instincts—principally those that relate to the adaptation of the person to his environment. As, however, the central nervous system is essentially concerned in this, it is readily comprehensible that the manifestations of such disorders should reveal themselves by means of perturbations of this system. In the same way, Graves' disease is not now regarded as a true nervous disease, for the nervous alterations and symptoms are only *secondary* to affections of the thyroid gland.

A word must be said on the differences between the actual neuroses and the psycho-neuroses. The main three are these: (1) The injurious trauma is a physical one in the former case, a mental one in the latter. (2) In the former case the cause is still operative at the actual moment, and the neurosis ceases when it is removed. In the latter case the ultimate cause lies in the patient's past, in early childhood. (3) In the former case the individual symptoms cannot be further reduced or explained by any form of psychological analysis, whereas in the latter it is found that each separate symptom has a psychological meaning, is in fact a condensed symbolic expression of a great number of mental experiences.

It is frequently observed in practice that a given patient may present signs of both a neurosis and an organic affection. No doubt this occurrence is frequently a coincidence, for there is nothing in the nature of a neurosis that precludes the patient from acquiring a tumour of the brain or other organic trouble. Every neurologist will agree, however, that in many cases there is a causal connection between the two conditions, in that the presence of an organic affection, perhaps of some more than of others, seem to favour the occurrence of certain neuroses. It is to be noted that the organic affection should be regarded as the cause of the *outbreak* of the neurosis, not of the neurosis itself. To understand the explanation of this, we have to remember that in the etiology of the neuroses, just as in that of all other diseases, there have to be distinguished specific, essential factors, in the absence of which the condition cannot arise, and accessory, adjuvant or exciting factors; the latter, such as overwork, strain, grief, and accidents, are often erroneously thought to be the essential factors. Now you are familiar with the fact that with various infectious disease will result if the dose of the specific virus is sufficient, but that disease may also result from a smaller dose.



provided that adjuvant factors (general ill-health, etc.) are also in action. The specific causes of the neuroses are widespread, and we have all had to contend, more or less successfully, with some of them; with many persons their harmful effect can be averted only so long as no other noxious factor intervenes. Dealing with the accessory factors, which have evoked the outbreak of symptoms, is in most cases merely a temporary postponement of the trouble; on the other hand, satisfactorily dealing with the specific factors means making the patient free, strong and independent, so that he is in a position to resist the action of any of the accessory influences. Organic nervous disease is one of the accessory factors; it alone can produce no neurosis, but it can favour the outbreak of neurotic symptoms in a patient with whom the specific causes of neurosis are acting.

In regard to the differential diagnosis of the neuroses, I wish to lay down one principal thesis: one should never make such a diagnosis on merely negative grounds, but only when the characteristic features of neurotic symptoms are present. It is an only too common practice to examine for certain signs that are generally considered pathognomonic of organic changes in the nervous system, and, when these are not found, to declare the case one of "functional disease." A little consideration shows that in many cases this procedure must inevitably lead the observer into error, for, on the one hand, many cases of organic nervous disease do not show in their early stage the particular signs just referred to, and so would incorrectly be labelled "functional," while, on the other hand, when a neurosis co-exists with an organic affection, it will necessarily be overlooked. When a patient complains of headache and fatigue, one does not make the diagnosis of Bright's disease merely by excluding other diseases: one looks for the characteristic evidences of this affection. In spite of the obviousness of this truth, it is remarkable how frequently it is ignored when it is a question of recognising a neurosis. I must insist that the features of neurotic symptoms are as typical and clearly defined as those of most other diseases, so that, in the absence of these features, one should refuse to pronounce a given case one of neurosis.

It is only possible here to select a few of the commonest errors in diagnosis, and thus to illustrate the principles on which such diagnosis should be founded. In the case of the actual neuroses, the mistakes made are commonly due, not to errors in judgement, but to ignorance of the cardinal features of each form. For instance, the mistake of confounding the early stage of a general

paralysis or dementia præcox with neurasthenia is not so frequent as the ignorant confounding under this term of conditions which are fundamentally different one from the other. Affections so disparate as obsessional states, cyclothymia (a mild form of manic-depressive insanity), anxiety states, and neurasthenia proper are frequently brought together under a single heading, whereas, in reality, the etiology, course, prognosis, and treatment are totally different with each of these.\* Even the two forms of actual neuroses have to be very clearly distinguished from each other, for the cause and treatment is almost exactly opposite in the two cases; neurasthenia is due to the combination of deficient afferent excitation with excessive efferent outflow, while the anxiety neurosis is due to the combination of excessive afferent excitation with deficient efferent outflow. With the anxiety neurosis the mistake most frequently made is to confound the condition, not with any organic nervous disease, but with affections of some other system. This is due to the fact that so many of the cases are atypical, some symptoms of the complete syndrome being much more pronounced than others. For instance, when these are mainly cardiac, such as palpitation, increased frequency, irregularity and sudden stoppage of the heart's action, pain of cardiac distribution, deep sighing respiration, apparent dyspnea, etc., they may easily be thought to proceed from some mural or valvular lesion; the attacks of nausea or vomiting, with chronic diarrhoea, often mislead the observer into concentrating his attention on the alimentary tract; the pollakuria, precipitancy of micturition and polyuria may give rise to the suspicion of granular kidney, and so on.

Obsessional states, if they are not erroneously thought to be neurasthenic, should as a rule be easily recognised. They are rarely mistaken for any organic nervous disease, but they are sometimes difficult to distinguish from certain forms of hysteria, and especially from dementia præcox.

Hysteria is the neurosis that is most frequently confounded with organic nervous disease; one of the chief reasons for this is neglect of the principle above referred to, for a knowledge of the exceedingly characteristic traits presented by hysterical symptoms would prevent the majority of such mistakes. One or two instances only will be given. In the case of a paralysis, possibly due to hysteria, one, of course, examines for the most valuable indications of organic change in the nervous system, such as Babinski's sign,

\*In a recent paper, "A Modern Conception of the Psychoneuroses," *Canada Lancet*, Feb., 1910, I have briefly indicated some of the main features of the actual neuroses.

Mendel's sign, etc., but the absence of these by no means proves the case to be one of hysteria, neither does the presence of them exclude the co-existence of hysteria. If the paralysis is due to hysteria, then it will present at least some of the features characteristic of hysterical paralysis; these do not occur in cerebral paralysis, and it is with this that the differential diagnosis is largely concerned. It may, for instance, affect the proximal part of the limb to a greater extent than the distal, contrary to the rule of cerebral palsies. It is frequently more intense than is seen with these, and yet at the same time may be strikingly localised. When this combination of excessive intensity and limited distribution is present, it is highly characteristic of hysteria. One may formulate the rule that a cerebral paralysis is never at the same time complete and partial, as a hysterical one frequently is. When a cerebral lesion causes complete paralysis of a limb, then the paralysis will not be altogether confined to that limb. In hysteria, the limitation may proceed still further, to what is called dissociation of a given function: thus a limb may be absolutely paralysed for one purpose, as in the syndrome known as *astasia abasia*, and yet may function normally in other respects.

This curious combination of excessive intensity and strict limitation is seen in other regions than that of motility. In hysteria, an absolute aphasia may be observed quite confined to the sensory side, an occurrence never met with in organic disease. Remarkable dissociations are here also not infrequently met with; a patient may lose the power of comprehending his native tongue while retaining that in regard to foreign languages. This is in sharp contrast to the less striking forms of dissociation produced by organic disease, where the function lost is always the most complex or latest acquired.

Similar features may be observed in connection with the sensory symptoms. Absolute loss of one form of sensibility, *e.g.*, pain, with perfect retention of all other forms, is an occurrence rarely if ever found in organic disease, but frequently in hysteria. Here the dissociation, or electivity, may be so pronounced as to be quite distinctive of the affection; a patient may for instance be quite unable to recognise by touch certain objects at a time when he can readily distinguish others. The function lost may as before be less complex than that retained in contrast to the rule of organic disease; I have seen a patient recognise the shape and nature of an object placed in his totally anæsthetic hand, a paradox the explanation of which leads us far into the understanding of the pathogenesis of hysteria.

These few examples must suffice to illustrate the principle above laid down, that neurotic symptoms have their peculiar characteristics as well as organic ones, and that the diagnosis of them, to be accurate, must rest on a knowledge of these characteristics.

An evident corollary from these considerations is that in neurological diagnosis a knowledge is necessary of the typical features, not only of organic diseases, but also of the neuroses. May I add a few other reasons why some knowledge of the neuroses is an important matter? In the first place, on account of their great frequency; when the numerous errors in diagnosis are taken in consideration, it is probable that hysteria alone is the most frequent single disease calling for medical treatment. In the next place, it is obviously important to recognise affections in regard to which our therapeutic measures have most avail. In this connection I wish to call attention to the importance of making an early diagnosis of these affections. You have often heard stress laid, with right, on the urgency of the early recognition of pulmonary tuberculosis, of appendicitis, perforative peritonitis, and other maladies in which therapeutic success largely depends on the time of intervention. One hears very little about the desirability of recognising a neurosis in its early stages. Yet it is far from being a matter of indifference as to whether the radical treatment of a neurosis is begun early or late. I would remind you that the treatment of an advanced case of neurosis, when the patient is in a state of inveterate invalidism, is a formidable, laborious and often disappointing task; all such cases, however, were at one time in an early stage, and it is very difficult to foretell whether any given mild case will evolve in this direction or not. Last, but not least, is the consideration that a study of the conditions favouring the development of a neurosis is perhaps more instructive than any other medical study in regard to various sociological and educative problems which every medical practitioner must face no less than any other thoughtful citizen.



## Medicine

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GRAHAM CHAMBERS, R. J. DWYER, GOLDWIN HOWLAND,  
GEO. W. ROSS, WM. D. YOUNG.

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**A Critical Review of Existing Theories and the Presentation of a New Theory of the Etiology of Achylia Gastrica.** GEORGE EDWARD BARNES, B.A., M.D., Herkimer, N.Y. *New York Med. J.*, August 20, '10.

Achylia gastrica means gastric juicelessness and implies non-digestion of proteids in the stomach. Three main conditions are related as causes, namely: (1) Primary atrophy of the mucous membrane, as in pernicious anemia; (2) secondary, due to conditions as gastric carcinoma; (3) nervous origin—in functional diseases. Authors differ as to their views as to the latter cause, and Barnes himself does not lay any stress on such nervous causes. But he suggests a neuritis of the vagi nerves supplying the stomach, and calls to our attention cases of gastric ptosis as probably causal of the strain on the vagi and the consequent achylia gastrica.

G. W. H.

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**The New Test for Cancer of the Stomach, with Suggested Improvements.** J. W. WEINSTEIN, M.D., NEW YORK. *Journal A. M. A.*, Sept. 24, '10.

In normal digestion proteins are changed by stages to amino-acids, but in the stomach itself the transformation only reaches the peptone form, which passes on further duodenal action into a "peptid" before terminating in the amino-acid condition.

Glycyltryptophan is a dipeptid of synthetic origin, formed from glycine and tryptophan (two amino-acids), and if the filtrate from a specimen of gastric contents is added to a solution of this dipeptid and the mixture warmed for 24 hours there will be found present glycine and tryptophan *in cases of gastric carcinoma*, since cancer ferment is able to accomplish this.

To test for amino-acids, it is necessary to acidify by acetic acid and then to a few c.c.s. of the gastric fluid to add Bromine or



Bromine water, when one will perceive as a positive test, the production of a red-violet color.

Bacterial agency, blood and regurgitated trypsin may, according to authors, invalidate the test.

Weinstein claims that the use of glycoltryptophan is uncalled for, as in the presence of cancer the ordinary food proteids are changed into these amino-acids. Accordingly he only uses ordinary stomach contents without the addition of this acid.

Free hydrochloric acid may invalidate the test so that it may be necessary to wash the stomach out before giving the test meal; also any coloring substance contained in the food will modify the result.

G. W. H.

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#### **Atony of the Stomach.** J. W. WEINSTEIN, M.D., New York.

Atony of the stomach is that condition in which the motility of the organ is impaired.

Weinstein gives his patient a meal of meat, soup, bread and potatoes, and considers a stomach as atonic which shows food present seven hours after the meal was taken.

Disturbances of the motility of the stomach must depend on the movements, or on the disturbance of the action of the pyloric sphincter, and dilatation, according to the writer, is rare in atony.

Etiologically there is congenital and acquired weakness of the wall, to the latter of which causes belong overfeeding, surplus fluid ingestion, milk cures, emotional disturbances, defective mastication and secondary obstruction. The symptoms are manifold, hyperacidity, distension, pain, belching of gas, constipation, splashing stomach, and so forth.

G. W. H.

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#### **Duodenal Regurgitation Due to Fatty Foods and Oils as a Clinical Entity. Fat Intolerance of Gastric Origin.** ANTHONY BASSLER, M.D., New York.

Fatty foods and oils are counterindicated in poor fat digestion, absorption, and metabolic difficulty in assimilating; in icterus, pancreatic disease, disease of the intestinal wall, diabetes and phthisis.

Bassler adds the following type of case as an addition to this non-fat digesting class.

Sharp pain in the epigastrium of acute onset, radiating to the back; duration minutes to days. No relation to food, no vomiting and no special subjective signs aided the diagnosis.

Objectively no tender areas, muscular spasms, pressure pains nor stool symptoms were present, so that pylorospasm was a natural diagnosis.

Ordinary diets, bromides and oils before meals were ordered with no success.

The examination of gastric contents showed presence of pancreatic juice and oil, evidently due to regurgitation, and changing diet to fat-free class rapidly cured the cases.

G. W. H.

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**Bier's Textbook of Hyperemia.** By PROF. DR. AUGUST BIER. Translation from the 6th German Revised Edition by Dr. G. M. Blech. Published by Rebman Co.

It is quite unnecessary to review the sixth edition of a standard work, except to recall the volume to the attention of younger practitioners. Bier's work and methods have been largely adopted by every first-class physician, and any active worker who has not read this classic work or is ignorant of the methods is losing manifold opportunities of assisting nature in his everyday practice. There is not a more helpful book or a more satisfactory method that can be used to-day, in suitable cases, than the system of treatment taught by Bier.

G. W. H.

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**Morphology of the Human Body.** By PROF. ACHILLE DE GIOVANNI, Director of the General Medical Clinic, University of Padua. Translated by John Joseph Eyre, M.R.C.P., L.R.C.S.I., D.P.H., Cambridge. Published by Rebman Co.

This book is intended to stimulate clinical work along a new line of thought, namely, the form of the body and the form of its constituent parts.

The professor has deduced his facts largely from actual measurements of the body and its contained organs, and he endeavors to deduce information as to the nature of the individual in multifarious ways by this clinical research.

There are many interesting points and valuable ideas locked up in these pages, which must be searched for, but the volume as a whole is quite unsuited for the normal reader.

The work is taken up in a most verbose manner, and it is seem-

ingly most difficult to understand what the author is trying to impart, a fact perhaps largely due to its being a translation from the Italian. Much of his own ideas he negatives, and there is a frequent repetition of material, and to such an extent is this carried and so difficult to follow is the general meaning that it is doubtful if many readers would be willing to peruse the book throughout.

Yet there are some pearls among the vast amount of undesirable matter, and to a very patient reader some benefit may result.

G. W. H.

## Surgery

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WALTER McKEOWN, HERBERT A. BRUCE, W. J. O. MALLOCH,  
WALLACE A. SCOTT, GEORGE EWART WILSON.

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**On Occluding and Suboccluding Ligatures.** VICTOR BONNEY. *The Lancet*.

The writer likens the condition of the tissues distal to the ligature to artificial infarction. If the whole of the tissues be occluded, then the infarction is of the white variety, while if only partial, that is subocclusion, a red infarct results.

He further points out that suboccluding ligatures result in great pain, while the occluding ones are painless. Examples of the former and latter respectively are seen in the twisting of an ovarian cyst pedicle and the tying up of same.

Practically then suboccluding ligatures should never be used, as they are not reliable, bends being responsible for numerous adhesions.

G. E. W.

## Obstetrics

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CHAS. J. C. O. HASTINGS, ARTHUR C. HENDRICK.

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**Sterility:** Its Etiology and Treatment. By R. A. GIBBONS, F.R.C.S.E.

The writer, after alluding to the great importance and far-reaching effects of this condition, defines sterility as the inability on the part of a married couple to bring about conception.

Sterility is dependent not alone upon the woman, as latent gonorrhea in the male, as Næggerath has shown, is more prevalent and far-reaching than was once suspected.

*Etiology.*—First in the woman. This may be either 1, structural, e.g., vaginismus, vaginitis, diseases of the tubes, etc. 2, functional, e.g., dysmenorrhea, general diseases, obesity, alcoholism, etc.

Among important causes the writer very correctly attributes much to the excessive secretions which are poured into the vagina in certain conditions, which are toxic to the spermatozoa. Again inflammatory conditions of the tubes are important, especially appendicitis,—both tubes may become involved and sealed up,—and gonorrhea.

Another affection is puerperal inflammation, which accounts for most "one-child sterility."

Affections of the ovaries are important, but even a badly damaged cystic ovary may produce an egg.

Amongst general diseases, tubercle, mumps, drug habits, are noted.

*Sterility in Man.*—Gonorrhea is important in causing epididymitis and consequent sterility. X-rays and radium may also cause azoöpermia.

*Treatment.*—Apart from attending to the general health, surgical intervention, as dilating, curetting and curing a severe discharge are indicated. Retroflexion does not cause sterility, but severe lacerations of the cervix do, and should be repaired.

If after all these indications have been followed and conception does not follow, the husband should be examined by the bacteriologist, to ascertain the presence of sperm or otherwise.

A. C. H.



## Psychiatry

W. C. HERRIMAN, ERNEST JONES.

**Some Aspects of Heredity in Relation to Mind.** By H. B. DONKIN, *Lancet*, Oct. 22, 1910, p. 1188.

This interesting paper, the contents of which formed the Harveian oration for 1910, is of an academic and general character. The chief point on which stress is laid is the vagueness of thought and ignorance of biological conceptions prevalent in the medical profession on the subject of heredity. Referring to the recent Royal Commission on the Control of the Feeble-minded, the author writes: "So apparent, indeed, even to the non-medical members of the Commission, were the confusion of thought and the inaccurate language which pervaded much of the evidence on this head, that the report expressed the unanimous opinion that the important subject of heredity should be especially emphasized in the medical curriculum." Those who have specially studied the question know that we need far more evidence than we at present possess before we can be in a position to dogmatise about the relations of heredity to insanity, as is often so lightly done. One thing at least is established, that the offspring does not inherit any effect of a harmful influence *acquired* by the parent, such as alcohol. E. J.

**A Plan for the Prophylaxis of Mental Disorders and the After-care of Convalescent Patients by Organized Social Service.** A. P. HERRING. *Maryland Med. Jour.*, November, 1910, p. 364.

Most of the matters dealt with in this paper are chiefly of local interest, concerning arrangements being made in Maryland for the after-care of discharged patients. Stress is laid on the importance of conducting asylums on hospital lines, and of counteracting the popular prejudices on the subject of insanity which prevent patients from receiving treatment whilst in the early stages. It is evident that this is impossible so long as the asylum is the only place for treatment, and in fact the key to the new situation in Maryland is the establishment of an acute hospital, or psychiatric clinic. No progress can be made in the prevention, treatment or investigation of insanity without such a clinic. E. J.

# Rhinology, Laryngology and Otology

GEOFFREY BOYD, GILBERT ROYCE.

---

**Enucleation of the Faucial Tonsils.** Its Difficulties and Contraindications. By B. R. SHURLY, M.D., Detroit. *Jour. A. M. A.*, October 20, 1910.

In this excellent paper the author gives a brief review of the history of operations upon the tonsil. Celsus recognized the value of enucleation by the finger. Boxelli, an Italian surgeon, fifty years ago, describes his revival of the method of Celsus. The American furore for complete enucleation is little more than a revival. The author states that enucleation is seldom done outside of America at the present time. The two predominating factors that influence the question of conservative or radical tonsil enucleation, seem to be, first, the latent doubt of a possible important function which the tonsil tissue may possess; second, the belief that complete removal is unnecessary. It is permissible to believe with Bordley, that these glands in early infancy act as governors over the system of ductless glands and possess an internal secretion from the normal tissue which regulates various parts of polymorphonuclear and mononuclear blood-cells.

The author thus summarizes his conclusions:

1. The normal tonsil should not be disturbed, particularly in early infancy.
2. Simply hypertrophied tonsils may be removed satisfactorily with the tonsillotome.
3. Pathologic tonsils, especially those of the submerged type that produce well-defined local or general symptoms, should be completely removed within the capsule.
4. In children, tonsillectomy requires a general anesthetic, preferably ether. This should be a hospital operation when possible.
5. Tonsillectomy is an operation that should be restricted to those who are specially qualified.
6. The removal of the velar lobe and the complete separation of the pillars are the most important parts of the tonsil operation.
7. Tonsillectomy is not indicated in all cases of so-called rheumatism.

8. Complete enucleation is usually attended by more pain, a longer period of convalescence, and greater danger of infection than tonsillotomy.
9. When tonsillectomy is properly performed the hemorrhage is less than when the average tonsillectomy is done.
10. Tonsils which have been involved in recent acute inflammation should not be operated on until all evidence of the acute condition has subsided.
11. Many tonsils seen by the general practitioner with every appearance of serious pathologic condition never develop local systemic symptoms.

G. R.

## THERAPEUTIC TIPS.

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### ACUTE GONORRHEA.

Prophylactic treatment administered within eight hours of exposure almost certainly ensures protection, and may be of good value up to forty-eight hours. According to Christian (Philadelphia), local treatment is best conducted with permanganate of potash, though that alone will not cure a case. The damage done to the mucous membrane by the gonococcus must be repaired by something that acts like an astringent. Macy Brooks (Philadelphia) says a case cured within two or three weeks has been aborted. A daily injection within this time, by the physician, is sufficient.

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### SYPHILIS.

The *Berliner Klinische Wochenschrift* says physicians must apply the Ehrlich-Hata "606" remedy only upon the strictest indications. It should be used only in cases of severe type, especially those refractory to mercury or where mercurials are not tolerated; in relapsing cases, after or during mercury cure; in incipient cases before the appearance of the roseola and in cases never treated with mercurials. Its use in parasymphilitic diseases is yet a matter of careful experiment.

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### LUMBAGO.

Howard Humphries (London) says the ideal treatment of lumbago is to move bowels freely by mercury and salines; sodium salicylate and sodium citrate 20 grains each in a glass of hot water every four, five or six hours. Light should be applied from a 500-candle-power for fifteen or twenty minutes, to be followed by static wave current for same length of time.

---

### HEMORRHAGE IN TYPHOID.

In *Am. Med.*, C. J. Strong, New York, advises ice bags locally and calcium lactate twenty grains every three hours. Undue irritation and distension are to be avoided by careful diet. Occasionally codeine or morphine, if patient is restless, may be administered, but never in pain or where there are areas of local tenderness, as evidences of perforation might be masked. Has not as yet tried normal bone serum.

## Reviews

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W. B. Saunders Company now have going through their presses a three-volume work on Practical Treatment, written by international authorities and edited by those able clinicians, Dr. John H. Musser and Dr. A. O. J. Kelly, both of the University of Pennsylvania.

In looking over the list of contributors we can come to but one conclusion, namely, that this work will undoubtedly take rank as the very best on Treatment extant. The names of the authors carry with them the positive assurance of thoroughness. Indeed, each chapter is a complete monograph, presenting the most recent therapeutic measures in a really practical way.

As the general practitioner is required to know certain therapeutic measures more or less of a surgical nature, leading surgeons have been selected to present such subjects. This is an important feature, and, to our knowledge, not included in any similar work.

In every case the men have been most aptly chosen for their respective tasks, and under the wise editorship of Drs. Musser and Kelly there has been produced a work on Treatment that will remain for many years the last word—a source of practical information, easily obtained and readily digested.

The work will sell for \$6.00 per volume, in sets only.

---

*Insanity in Everyday Practice.* Second Edition. By E. G. YOUNGER, M.D. London: Baillière, Tindall & Cox.

In our October issue, through a regrettable error, the reviewer entered this book as published by Mr. H. K. Lewis, London.



# Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

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TORONTO, DECEMBER, 1910.

No. 6

## COMMENT FROM MONTH TO MONTH.

Dr. J. Algernon Temple was tendered a complimentary banquet and presentation on the evening of the 26th of November, in the York Club, Toronto. Over seventy medical friends and some others participated in the function, which was a well-deserved tribute to a teacher and practitioner of over forty years' standing in this city.

Dr. John T. Fotheringham presided. Dr. Arthur Jukes Johnson made the presentation of a handsomely bound-in-morocco illuminated address. Needless to say, this address expressed the strongest admiration for the splendid qualities which have always been exemplified in Dr. Temple as a man, a teacher and a practitioner.

Dr. R. B. Nevitt, one of Dr. Temple's oldest students, made the presentation of a solid silver tea and coffee service, whilst others who made congratulatory speeches were Drs. J. F. W. Ross, Charles Sheard, G. Sterling Ryerson, and Messrs. E. B. Osler, M.P., and D. R. Wilkie.

The occasion of Dr. Temple's retirement from the active teaching of obstetrics and gynecology was seized as a fitting and proper time to give expression to that universal confidence and esteem in which he has always been held by the student body and the pro-

fession at large. It is doubtful if any teacher of medicine in Canada ever commanded the respect and confidence of the student body better than Dr. Temple. There never was any "sloping" when he had to lecture. In the profession which Dr. Temple loves exceedingly he has always stood for all that was honorable and dignified.

His many admirers and friends throughout Canada will be gratified at this testimonial to his worth, and will wish for him happy days in his retirement from academic work.

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**Bread in paper bags** is something very much needed. Every thing now comes to the table pretty suitably protected except the staff of life. It is inconceivable that we go on day after day eating our bread just as it is handed in by the driver of a bread wagon. It is about the only article for the table which is not properly protected. The housewives of Toronto would certainly rise up and call the Medical Health Officer blessed if he would bring about a reform in this direction. Just think of the delicate bread of a pink tea, a few minutes before handed in by a driver who may not be over-particular as to what he handles while on his route during the course of a day. The silly label has gone, and surely it is high time to banish unbagged bread.

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**Cholera.**—In view of the fact that a case of cholera has been discovered entering Canada at Grosse Isle, according to Professor Adami and Director-General of Public Health Dr. Montizambert, the public can be assured that the federal health authorities are keeping a close watch to prevent the introduction of this Asiatic disease into Canada.

Cholera has not gained an entrance into this country or the United States since the fourth pandemic of 1864-1875. The exact year it last visited Canada and the United States to any extent was 1866, following upon the infection of Germany and England. A few cases, however, occurred in Jersey City and New York in 1893. It also visited Canada in 1837-38.

It was in 1883 Koch demonstrated Asiatic cholera to be an intestinal disease caused by the comma-shaped bacillus. These were found in the contents or wall of the intestine.

The disease often varies in its clinical picture. A severe case of

fulminant cholera sicca will prove fatal in a few hours. The bacillus carrier will walk around with no symptoms.

A picture of a case of classical type will present vomiting, diarrhea of rice water character, abdominal cramps, cramps in legs and arms, subnormal temperature, loss of voice, failure of pulse, cyanosis and suppression of urine and bile, and collapse. Typical cases like these would be easy of diagnosis. There are, however, atypical cases, and in cholera sicca there is no diarrhea, the cases fatal in a few hours.

Treatment is considered under two headings, the treatment of collapse and the treatment of uremia. For the former there is no better treatment than the intravenous injection of salt solution, as the great need of the patient is for fluid, and the fluid must be rushed into the blood path at once.

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**Epidemic Poliomyelitis.**—Acute anterior poliomyelitis formerly, would, under present understanding, according to Holt, be better designated "epidemic myeloencephalitis." It is for all practical purposes now considered a contagious disease, and numerous Boards of Health have placed it on the lists of reportable diseases.

That it has been very widespread in its incidence, especially since 1907, everybody knows. Over eight thousand cases have been reported from 1905 to 1909, and of the five thousand cases in the United States practically all occurred in the three years, 1907-1909, when in the former year the cases were very definitely confined to New York City.

In a paper on the subject Passed Assistant Surgeon Frost of the U. S. Public Health and Marine Hospital service gives the following suggestions as to what the health officer can do towards the prophylaxis of the disease:

1. Isolation of the patient, with isolation of the contacts so far as practicable—certainly to the extent of excluding members of the patient's family from school for at least two weeks. Exclusion of insects and animals from the room.

2. Disinfection of the secretions of the nose and mouth and of the stools and urine. Disinfection of all articles which might have been contaminated by the patient.

3. Fumigation of premises after recovery.

In framing our expectation of results from these measures we must consider several circumstances:

1. The disease is already disseminated over a wide area. Experience with other widespread contagious diseases, such as scarlet

fever, for the control of which we have to depend solely on isolation and disinfection, has demonstrated that we can hardly expect to eradicate such a disease by present methods, but that much may be done in the way of limiting its spread.

2. Epidemic poliomyelitis presents unusual difficulties in the recognition of even typical cases in their early stage and of abortive cases in all stages.

3. It will be difficult to estimate the effect of preventive measures, since the disease often fails to spread in communities where conditions seem most favorable for an epidemic.

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**Medical Expert Testimony** is again brought before the notice of the profession of Ontario through one or two noted cases, and through an address by Mr. Justice Riddell to the medical faculty in Toronto.

To judges, lawyers and physicians the subject has long been somewhat puzzling of solution, and whilst eminent jurists may wax sarcastic at the expense of the medical profession, we doubt if any one has practically a clear conception of how the problem should be solved.

Even great legal luminaries have not as yet evolved any practical idea which could be advanced towards solving what is manifestly bringing the medical profession into disrepute with the public at large.

In the United States it has also been a perplexing question. There two States have, however, done something towards enacting expert testimony laws, namely, Michigan and Rhode Island, and now Missouri is moving in a similar direction.

In Ontario something might be set on foot by the Ontario Medical Association promoting joint co-operation with the Ontario Bar Association. These two organizations should get together for joint discussion and work.

Medical conceit possibly plays a large part in medical expert testimony, and this is probably more in evidence in insanity cases than elsewhere. A case with a surgical or otological or ophthalmical or psychiatric turning should surely be far better served by a specialist in either of these special departments of the practice of medicine than by a medical expert so-called taken from the ranks of general medicine.

The abuse will, therefore, continue just so long as surgeons consider they are qualified to place their opinions alongside of psychiatrists, or gynecologists attempt to give expert testimony on otology.



## News Items

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DR. MURRAY MACLAREN, St. John, N.B., has returned from England.

AN unopposed eye, ear, nose and throat practice and property is for sale in smaller city. Particulars will be furnished through this office.

A MILD case of Asiatic Cholera is reported to have reached Canada, it having been promptly detected and quarantined at Grosse Isle.

THE report of Judge Winchester into the Toronto Isolation Hospital highly compliments Dr. Charles Sheard on his administration of that institution.

OUT-OF-TOWN practitioners referring cases for confinement to Toronto will hear of a good home under charge of an experienced and competent nurse by applying to this office.

SPECIAL SOUTHERN NUMBER.—The January issue of the *American Journal of Surgery* will be composed entirely of original contributions from the pens of well known Southern surgeons. Among those to appear we would mention: "Pyuria," by Howard A. Kelly, M.D., Baltimore, Md.; "Transfusion of the Blood, Its Indication and Technique," by J. Shelton Horsley, M.D., Richmond, Va.; "Tumors of the Lower Jaw, The Form Most Frequently Found in the Negro," by Willis F. Westmoreland, M.D., Atlanta, Ga.; "Pylorospasm," by Stuart McGuire, M.D., Richmond, Va.; "Prevention of Immediate Post-Operative Pain by Quinine Injections," by Drs. V. and V. W. Pleth, Seguin, Texas; "The Importance of Educating the Public in Regard to Cancer," by Southgate Leigh, M.D., Norfolk, Va.; "Aerogenes Infections," by George R. White, M.D., Richmond, Va.; "Stricture of the Rectum, Complicating Fistule," by C. S. Venable, M.D., San Antonio, Texas; "Gastric Symptoms from a Surgical Viewpoint," by Louis Frank, M.D., Louisville, Ky. Dr. Edgar L. Capps of Ft. Worth, Texas, and H. Berlin, M.D., of Chattanooga, Tenn., will also contribute original articles to this number.



ONTARIO MEDICAL COUNCIL.—The following have been elected as territorial members of the Ontario Medical Council by acclamation. Those marked with a star were members of the last Council: Dr. G. R. Cruickshanks, Windsor, Division No. 1; Dr. A. B. Welford, Woodstock, Division No. 2; \*Dr. J. McArthur, London, Division No. 3; \*Dr. T. W. Vardon, Galt, Division No. 5; \*Dr. H. S. Griffin, Hamilton, Division No. 7; \*Dr. W. H. Merritt, St. Catharines, Division No. 8; \*Dr. R. J. Gibson, Sault Ste. Marie, Division No. 9; Dr. Alex. D. Stewart, Fort William, Division No. 10; \*Dr. J. S. Hart, Toronto, Division No. 12; \*Dr. H. Bascom, Uxbridge, Division No. 13; Dr. T. W. G. Young, Peterborough, Division No. 14; \*Dr. W. Spankie, Wolfe Island, Division No. 16; \*Dr. J. Lane, Mallorytown, Division No. 17; \*Dr. M. O. Klotz, Ottawa, Division No. 18.

Dr. C. W. Hoare, Walkerville, has been succeeded by Dr. G. R. Cruickshanks, Windsor, in No. 1 Division. Dr. J. H. Cormack, St. Thomas, has been succeeded by Dr. A. B. Welford, Woodstock, in No. 2 Division. Dr. Alex. D. Stewart is returned as the first representative of a new constituency, Division No. 10. Dr. S. C. Hillier, Bowmanville, has been succeeded by Dr. T. W. G. Young, Peterborough, in what is now known as Division No. 14. On December 5th, 1910, contests will take place in Divisions Nos. 4, 6, 11 and 15. In Division No. 4, the candidates are: Dr. J. A. Robertson, Stratford, the former member, and Dr. A. T. Emmerson, Goderich. In Division No. 6, the candidates are: Dr. J. Henry, Orangeville, the former member; Dr. Taylor, Waubaushe, and Dr. McCollum, Thornbury. In Division No. 11, the candidates are: Dr. E. E. King, Toronto, the former member, and Dr. J. J. Cassidy, Toronto. In Division No. 15, the candidates are: Dr. A. E. MacColl, Belleville, the former member, and Dr. T. S. Tarneomb, Trenton.

MISS STUBBERFIELD, a graduate of St. Michael's Hospital, Toronto, has a well-appointed private hospital at 64 Gloucester St., this city.

DR. O. R. MABEE, Assistant Pathologist to the Toronto General Hospital, announces that he will be able to treat syphilis with Ehrlich's "606" about January 1st, 1911. Owing to the careful technique required in its preparation for use, and in giving the injection, it will be necessary for physicians who have cases for treatment to send them into a hospital.

## Correspondence.

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### AMERICAN PUBLIC HEALTH ASSOCIATION.

Office of the Secretary, Washington, D.C.  
November 5, 1910.

*To the Editor,—*

The American Public Health Association will hold its 1911 meeting in Havana, Cuba, from December 4 to 9. The prospect of having the association again in Havana has aroused the warmest interest among the physicians there, the Secretary of Sanitation, Dr. Varona, being particularly interested. The Academy of Medicine has offered its building for the general section meetings. The Hotel Sevilla will be the headquarters of the association. A few years ago a meeting in Havana would probably have discussed yellow fever. The changed situation in Cuba with respect to that disease is shown by the fact that yellow fever has been so completely extinguished on the island that the local physicians desire rather that tuberculosis be given the most prominent place. The question of the milk supply will also be considered.

It is hoped at this meeting that the recently organized Sociological Section, and the Section on Sanitary Engineering, which was tentatively authorized by the Milwaukee meeting, may be put upon substantial foundations.

Release at once.

WM. C. WOODWARD, *Secretary*,  
Washington, D.C.

## Publishers' Department

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**A THERAPEUTIC MAINSTAY.**—The distinct and definite therapeutic value of iron, in anemic and chlorotic conditions and as a general tonic in systemic devitalization from whatever cause, is one of the certainties of medicine that modern scepticism and therapeutic nihilism cannot deny or controvert. The only difference of opinion is as to the best method of administering this metal and as to the most generally eligible preparation of same. Modern pharmaceutical skill has replaced the tincture of the olden times, prepared from iron filings, with the non-irritant and thoroughly tolerable combinations with organic substances. None of these products have proved as generally acceptable, promptly assimilable or therapeutically efficient as Pepto-Mangan (Gude), the first and best preparation of the peptonates of iron and manganese in organoplastic form. Its remedial value is unquestioned and unquestionable. It is suitable for administration to patients of all ages. It is thoroughly palatable and acceptable. It does not irritate the gastric mucous membrane or disturb the digestion. It does not induce constipation. Pepto-Mangan (Gude) rapidly restores oxygenating power to the circulating fluid and fulfils every possible therapeutic indication that can reasonably be expected of it.

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**THE DIFFERENCE BETWEEN MORPHINE AND CODEINE AND HEROIN.**—A short time ago the Board of Health of the city of New York, promulgated an ordinance providing that "No cocaine or salt of cocaine, and no morphine or salt of morphine, either alone or in combination with other substances, shall be sold at retail by any person in the city of New York, except upon the prescription of a physician." Immediately every druggist in the city stopped the sale of all preparations containing any derivative of opium and raised such a furor, that the Acting Commissioner of the Board of Health felt called upon to explain what every druggist ought to have known, viz., that "Heroin and Codeine are not salts of morphine, and therefore are not included in the proscribed list." In order to make this matter perfectly clear, the following on the subject of opium is submitted for the information of the many who have been laboring under the misapprehension that Codeine and Heroin

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are salts of opium or of morphine. Opium, besides wax, fat, glucose, gum, pectin, resin, etc., contains about 20 alkaloids, among them being Morphine, Codeine, Thebaine, Narceine, Papaverine, Pseudo-morphine, Narcotine, etc., all occurring in varying amounts according to the grade of opium. While Morphine is an analgesic, it does not follow that Thebaine is an analgesic simply because it is also derived from opium. One might equally as well say that Acetanilid and Diamond Dyes have similar therapeutic effects, because both are derived from coal tar. Heroin, as is well known to every druggist, is a synthetic preparation and is not alkaloid of opium. There are no salts of opium; there are active principles or alkaloids from which, by the addition of acids, salts are formed, which become, not salts of opium, but salts of morphine, salts of codeine, etc. All chemists know this and all druggists probably know it, but fear of transgressing the law made the New York druggists take a position contrary to that which their knowledge of chemistry would indicate to be the correct one. Codeine and Heroin are not salts, either of opium or of morphine, the one being an active principle, and the other a synthetic compound. Furthermore, Morphine and Codeine have widely different properties; Codeine being entirely devoid of the evil effects of Morphine, not locking up the secretions or causing constipation; and the Codeine habit is a thing unknown in medical literature. In fact, all authorities agree that Codeine does not create habit. From all the above we glean the following facts: 1. Opium and derivatives of Opium, except Morphine and its salts are not in the proscribed list under the Regulation of the New York Board of Health. 2. Codeine and Heroin are not salts of Opium. 3. Codeine and Heroin are not salts of Morphine.—*Apothecary and New England Druggist*, Oct., 1910.

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FIVE CESAREAN SECTIONS ON ONE WOMAN.—The case which Dr. Davis reports in the *Bulletin of the Lying-in Hospital* and which is printed in this issue of the *Critic and Guide* is indeed a very interesting one. It shows what a human being may go through and still live. And we rejoice at the continuous improvement in surgical technique and the skill of our abdominal surgeons, who can perform a Cesarean section with about as little danger to mother and child as is entailed by an ordinary delivery. And we agree with the author of the report that the case fully and convincingly illustrates the possibility of repeatedly emptying the full-term uterus, successfully for both mother and child, by the Cesarean





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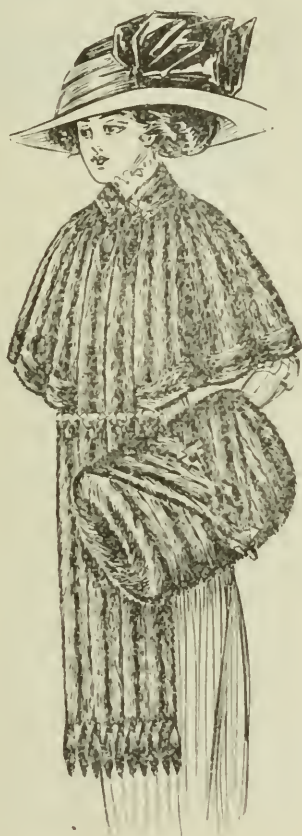
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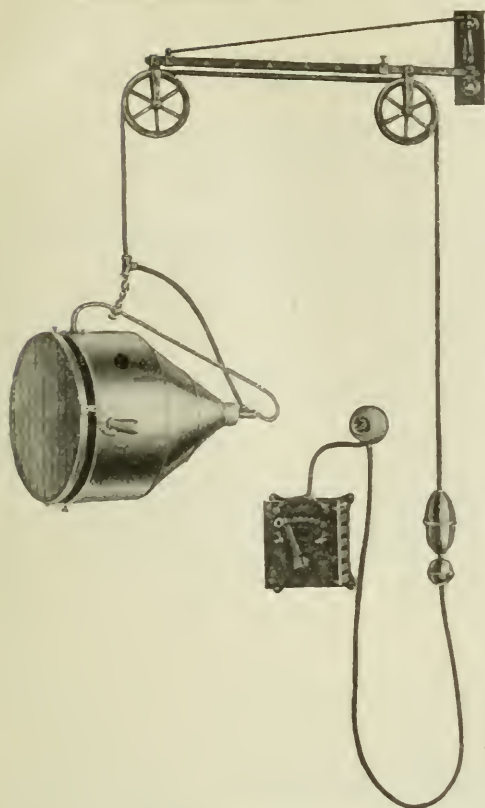
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method. But to our mind this case illustrates something more. It illustrates the low moral standard of our society. It illustrates that many men are detestable brutes, and that many women are pitiable, miserable, abject, slaves. Here is a young woman, who was unable to give birth to a living child by the natural way, because her pelvis was so narrow and contracted. The first child had to be killed and its skull crushed, before it could be delivered. Craniotomy is a serious operation for the mother and her life was in jeopardy. Did she object to become soon pregnant again and did the husband take care not to risk her life? No. Five months after the craniotomy, she was already pregnant again, and nine months later her abdomen and womb had to be cut open in order to deliver her of a living child. We are very skilful nowadays, but a Cesarean section is a capital operation, the woman's life is always in jeopardy, and a man who will subject his wife to the dangers of such an operation more than once (or even once, if he knows beforehand that it would become necessary), is unqualifiedly a brute. We know of cases where the wife was fully aware of the danger and insisted on taking it—so strong was the maternal instinct, the desire to have a child; that is a different matter. But even then the husband has no right to risk his wife's life more than once. But this poor woman, besides having to undergo one delivery by craniotomy, besides having one abortion produced on herself, had to submit five times to the opening of her abdomen and uterus, had to undergo five capital operations. And all for what? Only after the fifth Cesarean section did the doctor decide that it would be unsafe for her to bear any more children, and therefore attempted to suture up the Fallopian tubes. He stitched up the left one, but did not succeed in getting hold of the right tube, and the woman is still in danger of another pregnancy and another Cesarean section. In our opinion the doctor should have closed the tubes after the first or second section. But this is an individual opinion, the opinion of a man who considers the life of the adult woman infinitely more important, more precious than the life of the prospective and problematical child. Yes, the case reported by Dr. Davis, which is very interesting from a medical point of view, gives rise to many reflections, and the reflections are not of a very inspiring character.

— *Critic and Guide.*

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SIR JONATHAN HUTCHINSON ON SYPHILIS AND MARRIAGE.— Among the lenient and optimistic syphilologists Jonathan Hutchinson occupies first place. He still believes that grey powder is



## THE FACT

that light from the upper (violet) end of the spectrum and light from the lower (red) end produce opposite therapeutic effects, will give you an inkling as to the possibilities of

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the best and most efficient method of treating syphilis and that an interval of two years between the active manifestations of the disease and marriage is sufficient. He says that this two years' rule has never given him cause for regret, and in an experience of over fifty years he has not yet seen a case of congenital syphilis as a result of marriages which were contracted with his sanction.

"I most unhesitatingly record my conviction," he says, "that of an old man who has had much social experience—that, provided the two years' interval be observed, the dangers to society from needlessly prolonged celibacy infinitely exceed the risks of the communication of syphilis. Such diseases as insanity, tuberculosis, and even gout are far more real dangers to the race than is syphilis. If in reference to them, like rules as regards marriage were enforced as those which some would impose in reference to syphilis, it would be disastrous to social progress and would greatly reduce the sum of human happiness."—*Critic and Guide*.

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THE HYPODERMATIC TABLET AS AN EMERGENCY AGENT.—If there is one class of therapeutic agents which more than another should be chosen with discretion and judgment, the hypodermatic tablet represents that class. When he administers a preparation hypodermatically the physician wants prompt action, and he wants to be certain that he is going to get it. To have that assurance he must use a tablet that is active, that has definite strength, that dissolves promptly and wholly. Cheap tablets, poorly made tablets, tablets concerning which there is the slightest doubt as to medicinal quality, may well be left alone. And there is no need to err in the matter of selection. Hypodermatic tablets of the better sort are easily obtainable. Perhaps the brand which comes readily to mind is the brand which is exploited so extensively to physicians under the familiar caption of "Five Seconds by the Watch." The makers, it is hardly necessary to add, are Messrs. Parke, Davis & Co., who guarantee their hypodermatic tablets unequivocally as to purity, solubility, activity and stability.

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SIR WILLIAM RAMSAY recently announced that radium now costs \$2,100,000 an ounce, which price is slightly less than the value given by him about a year ago, as \$2,500,000. A year ago there was said to be about one-quarter of a pound of radium in the world.



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As a matter of fact, the actual quantity is not now much greater. Radium banks have been established in Paris and London for the purpose of lending radium at a price. As much as \$200 has been charged for the use of 100 milligrammes for a single day.—*Sc. Am.*

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WHAT IS AGAR-AGAR?—*The Physicians' Drug News* gives the following description of this substance, which has recently come into prominence in the treatment of constipation. Agar-agar, also known as vegetable gelatine and gelosine, is a gelatine-like substance obtained in the East Indies from several species of sea weeds. It is obtainable largely in China, but the best product is said to come from Japan. The product is extracted from the sea weeds with hot water, evaporated and dried. It is obtained in bundles of shreds about two feet long, in sticks a foot long and an inch wide or in thin sheets or small cakes. Agar-agar jelly is prepared by dissolving one part of agar powder in 29 parts of water, using a water bath for the purpose, and adding to the resulting solution 1 per cent. of bicarbonate of soda to neutralize the slight acidity of the solution. In a paper on agar-agar in the treatment of constipation in children, by Dr. J. L. Morse (*Journal A. M. A.*), we find the following in reference to the properties and methods of use: Agar-agar has the property not only of absorbing water, but also of retaining it in its passage through the intestinal canal. It thus increases the bulk of the feces and prevents the formation of hard, fecal masses. This peculiarity, together with its resistance to bacterial decomposition, suggests its use in the treatment of that form of constipation which is due to complete digestion of the food and to complete absorption of the water from the intestinal tract, the stools being as the result small and very dry. The doses given have varied from  $\frac{1}{2}$  to 1 ounce daily. Owing to the nature of its action, no habit is produced and it is not necessary to increase the dose. In fact, it is usually possible to diminish the dose and in some instances to entirely discontinue it. In spite of the fact that agar-agar alters the character of the feces, it does not always induce a spontaneous evacuation of the bowels. This is because it does not exert an irritant action on the intestinal wall as do the products of putrefaction usually formed in the intestine. Schmidt called attention to this fact and added a small quantity of the extract of cascara to the agar-agar in order to supply this chemical irritant. A preparation of this sort is sold under the name of "regulin." This is made with one of the tasteless forms of cascara and is both taste-

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less and odorless. Whether the tasteless forms of cascara are as active as the others is a moot question. However this may be, a serious objection to this preparation is that it contains two substances having different actions, one acting mechanically by softening the feces, the other as an irritant to the intestinal wall. It is impossible to increase the dose of one without increasing that of the other also. It is much more rational, therefore, if both agar-agar and cascara are indicated, to give them separately, in order to be able to vary the doses of each independently. Agar-agar is sometimes eaten dry in the stick form, but is more often cut up into small pieces and eaten like a cereal with cream and sugar. It has almost no taste but a rather characteristic gelatinous feel in the mouth. In other instances it is mixed with cereals or cooked in with soups or broths. Schmidt cautions against using it in a too finely divided form, as the rapid swelling from the absorption of moisture in the stomach may cause colic and diarrhea.—*Medical Standard*.

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MISS LAURA TREVORROW, 192 Jarvis St., Toronto, is the agent in Canada for the "Storm" binder and abdominal supporter. These are manufactured under Miss Trevorrow's personal supervision, and the profession is thus assured of a good article when ordering same for patients.











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